ILLINOIS MEDICAL JOURNAL

THE OFFICIAL ORGAN OF

THE ILLINOIS STATE MEDICAL SOCIETY

VOL. LXIII | OAK PARK, ILL., March, 1933 | No. 3

ILLINOIS MEDICAL JOURNAL

Published monthly by the Illinois State Medical Society under the direction of the Publication Committee of the Council.

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Membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Dr. Henry G. Ohls, Managing Editor, 1618 Juneway Terrace, Chicago.

Contributors will submit all copy for publication typewritten on stardard size paper and double spaced. Copy not complying with this rule will be returned, if convenient.

Subscription price of this JOURNAL to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $3.50 per year for all foreign countries included in the postal union. Canada, $3.25. Single current copies, 50 cents.

Editorials

PSYCHOANALYSIS SHOULD NOT BE TAUGHT IN AMERICAN COLLEGES

Barnum was right!

And he proved it more than once. Yet such over-ripe sucker bait as the pish-tush of psychoanalysis has never been equalled since the day that "Phineas T." wishing to get lingering crowds out of his museum so that a fresh audience might enter, hung over a closed door to the street, a great sign reading

"To The Egress **
Take Care."

So everybody opened the door to see the egress, and—found themselves outside, with a pay-as-you-enter facing them on the way back.

It was a great little idea! Almost as great and a whole lot more decent than the sordid, salacious welter parading around in high class consultation rooms under the name of "Psychoanalysis."

A lot better title would be "pseudo-analysis," or, "sexo-analysis," only, and this alternative is one that makes a decent citizenry shudder. The depravity and filth with which is saturated psychoanalysis, or "P. A." as it is often nicknamed, is most revoltingly real dirt. More than Herod, does psychoanalysis achieve a murder of the innocents. In and by and with and from psychoanalysis nothing is clean nor chaste. The whole world is an open sewer and men and women merely floating blobs of pestilence. A macquereau and a panderer profit from the degradation of a victim's bodies. But the psychoanalyst gets fame and fortune from dealing in the nauseating dirt that rots a victim's soul. Veiled in promises, girt with pseudo-scientific knowledge in that unknown terrain—the psyche—psychoanalysis glides forth, a leprous, scabrous entity making into blasphemy the most casual and the most sacred relations of human existence. Psychoanalysis out-pagans paganism in erotic infiltration.

For about half a century now, psychoanaly-

sis has been gaining recognized place in therapeutic procedure. Yet the value of this school continues a moot question even in the minds of the most liberal of medical men. It is no study for undergraduates and few postgraduate men want the filth of Freudism.

Psychoanalysis is stressed by its proponents as a major panacea and practically infallible instrument in the clearing up of nervous and mental disorders. The process of relief is based upon the assumption of three "ground-pillars" in the theory of analysis of the neurosis;—i.e.—

1. Recognition of "repression."

2. Importance of sexual instincts.

3. Transference, which in this connection coincides with the more familiar term of "suggestion."

Resolved to its elements, these are all coincident—Sex and sex alone.

Many alienists frown decidedly upon psychoanalysis as it is best known today—i.e.—the Freud, Jung, Adler schools. Whether this black eye is merited, certain it is that while the milder neuroses such as hysteria, phobias or obsessional states are the principal fields of its noteworthy application, yet its most successful work is observed in those states afflicted with malformations of character, and in sexual inhibitions and abnormalities. While in cases of paranoia or of dementia praecox not much may be said for "P.A.," yet it is asserted that under benign conditions it is an excellent instrument to cope with depressive states. Now Wolgemuth says "Darwin discovered the Descent of man; Freud discovered that there is no decent man," and the pun is no worse than its target.

Indeed, psychoanalysists have been called "moral Voyeurs." And the fact remains that though psychoanalysis' outstanding yet dubious success is in mental cases having a sex bias or basis, which is not at all out of line with the psychoanalytical contention that "pregenital organizations of the libido" or points at which it may become fixated and to which in the event of subsequent repression there may be a return or "regression," are definitely responsible for subsequent neuroses, whose later form is determined by these infantile fixations; and that hence neuroses should be regarded as inhibitions in the development of the libido.

And according to psychoanalysists the world is laved in libido and nothing more.

Freud, Jung and Adler, all of whom are standard authorities on the question of "psychoanalysis," all of whom suckled their first milk of these dogmas from the same source, have all more or less so split on hairline doctrines that they are already "a house divided against itself." Whether psychoanalysis is a branch of medical science that should be included in an undergraduate curriculum is not only a delicate decision but a serious matter for wise judgment. And it is an experiment not to be undertaken but rather to be condemned as by a raven "Nevermore."

Psychoanalysis is like morphine. In wise hands it is an unproven though possibly invaluable aid to materia medica. In the hands of the immature it is a path that can not help but lead to charlatanry or absolute degeneration. Not the least of the evils by which it is at present surrounded are

1. Its adoption as a cure-all by wealthy neurotics.

2. The surface pruriency to the lay-mind in an attempt to digest and to assimilate its terms.

3. Its constant stress and even overemphasis of sex—impulses, inhibitions, license and libido generally.

4. The implantation of evil suggestion and of foul interpretation of what is extraneous by nature to such a nature.

5. The semi-mysticism that surrounds its developing stages.

6. Its intangibility of contacts in its self appointed assertion that it is able to reveal the psychology of the deepest unconscious of mental acts and its almost mechanical dissection of depth-psychology. The results invariably are sex, sexuality and more sex and sexuality.

Psychoanalysis first saw the modern light of day along about 1880-82 in the consulting rooms of Dr. Josef Breuer, a man then about 38 years old and who died in 1925. Charcot and Pierre Janet in France had not as yet done their memorable investigations into the origin of hysterical symptoms, when in 1881 Breuer used the first known application of pschoanalysis in relieving of hysteria a young girl who had been nursing her sick father. To Breuer it occurred that the symptoms were connected with im-

pressions received during a period of excitement while nursing her parent, so he put her into a state of hypnotic somnabulism, had her search through her memory for these connections, and to live through the pathogenic scenes with no inhibition of the effects that arose in the process. Further details are unnecessary. But when the doctor had had the girl do this, "the severe hysteria, and all the abnormal symptoms disappeared completely."

To which might be added the vulgar comment "That's what they all say."

About ten years later Breuer collaborated with Dr. Sigmund Freud, who has baptized one school with his name and they published in 1895 Breuer and Freud's "Studien über Hysterie." Five years later Freud went on his own and brought out his work on the subconscious message of the dream life of mortals—Freud's "Traumdeuting." And oh! what symbolism dreams have in the Freudian lore! So for the past thirty-two years psychoanalysis has been a branch of therapy little understood, yet well established in the world of psychiatry. Though German born, the subject filtered into Switzerland and from a pair of Swiss, E. Beluler and C. J. Jung, there arose a competitive clinic with that indigenous to Germany and Austria. There was no lack of sexuality in either school but a vast deal of hairsplitting. To get a stomach full of disgust read in Freud's "Neuronsolehre" the case account of "The Father, Little 5 year old Hans and the Pee-wee-maker."

Since the United States, and it might be said also, all English-speaking nations, own a more repressed attitude towards sex ratio and its import than do some of the Teutonic, Latin or Oriental nations, the question is whether we need an imported therapy for an ailment that we need not import. Further the question is as dubitable as to what proportion of modern cases of perversion are congenital or acquired. Certainly the young medico who has not yet found his sea-legs would be better concerning himself with the ills of the body rather than those of the mind until those times when he has so far mastered by clinical experience the vagaries of the physical organization, that he is able to compute with fair maturity of judgement where *physiology* ends and *psychology* begins. Is the average young medic to have his mind filled with such junk that everytime he ascends a flight of stairs he must recognize them as a "coitus symbol?"

Briefly epitomized the saliencies of psychoanalysis according to the accepted Freud-Jung standards include:

Breuer's attempt to explain his discoveries by the theory of *Catharsis*, or the hypothesis that "hysterical symptoms" originate through the energy of a mental process being withheld from conscious influence, and thus diverted into bodily innervation or "conversion," so that an hysterical symptom would thus be a substitute for an omitted mental act, and a reminiscence of the occasion which should have given rise to that act. So that, with this hypothesis, recovery can only be possible as the liberation of the affect that had gone astray and of its discharge along a normal path or "Abreaction."

Now this cathartic treatment gave "desired results," but it was found by Breuer that they "lacked permanence" and were dependent upon *the personal relation between patient and physician.*

It took Freud to find a way out. He altered the technique. Hypnosis was replaced by the method of free association, and the term "Psychoanalysis" invented to fit the process. A smart process, too. Through the years it has managed to smelt much gold of the realm out of the pay-dirt of the patient's makeup for the physician!

Since then two definitions are ascribed to the term—the first is the especial psychoanalytic treatment for nervous disorders and sex obsessions, and that science of unconscious mental processes also termed depth psychology. All of it is strong meat for the immature mind. And far too much of it, far too gamey to please even the sanely mature or the maturely sane. Very few men are willing to admit that their hats are symbolic of female genitals or that their neckties signify the male genitals.

All psychoanalytic treatment, no matter what its variation, takes heavy toll of physician and patient alike. Lengthy, special training is a pre-requisite for every doctor in the science, though neither Freud, nor more latterly Jung insist that an aspirant for psychoanalytical practicing honors must be a graduate in medicine. As a matter of fact Jung licenses more than a few laymen unless some of his American

practitioners are prevaricating. Which certainly should count against a psychoanalysis course in any reputable medical college. To say nothing of having it instilled in you daily that your umbrella, owned or borrowed, is but a symbol of the phallus. So you see that if a young doctor with his hat on his head and his umbrella in his hand is going upstairs, he has female genitals on his head, the male genitals in his hand and they are both working overtime on the coitus symbol.

What a dogma for the doctor!

Then, too, each patient's mind must be long and painstakingly explored.

You are told that results depend upon the replacement of unconscious mental acts by conscious acts, this replacement being done by overcoming internal resistances in the patient's mind. Quite often these are instinctive resistances of the mental censorship function. Yet such replacement is operative only in so far as that process has significance in relation to the disorder under treatment. All of which makes you sympathize a bit with the learned commentator who wrote "Psychoanalysis in general is like dream interpretation in particular,—a via regia to the 'Unconscious' of the psychoanalyst, so I should suggest spelling it in future, 'psycho-anal-ist.'

"They have far too much to say on Anal-erotic character traits."

From the standpoint of depth psychology, there are in psychoanalysis three perspectives—the dynamic, the economic and the topographical.

Briefly outlined,—

The Dynamic,—apart from the reception of external stimuli derives all mental processes from the interplay of forces that assist, combine or compromise with each other. Originally of organic origin, and in reality, instincts, these forces possess an immense somatic persistance or reserve of power or repetition-compulsion and are represented mentally as images or ideas with an affective charge or cathexis. Though the theory of instincts remains an obscure subject, an empirical analysis affords two groups—the ego instincts, relating to self preservation and the object instincts that are concerned with relations to an external object. Now the social instincts, even in psychoanalysis are not regarded as elementary. Concealed behind the ego and object instincts both, psychoanalysis places two fundamental instincts,—Eros or libido, the instinct striving for ever closer union; and creation; second, the instinct of destruction leading to the dissolution of what is alive. And to be abridging colloquially, "psychoanalysis" might be called "sex analysis" for the psychoanalysist believes in giving your libido its due.

The economic:—This regulates the course of mental processes by the pleasure-pain principle, with pain related to an increase of excitation and pleasure to its decrease. As it develops the original psychoanalysis principle undergoes a modification in reference to the external world so that the mental apparatus accustoms itself to temporary toleration of the symptoms of pain and habituates itself to temporary postponement of the pleasures of satisfaction. For "psychoanalysis" acts on the hypothesis that mental representations of the instincts own a cathexis of definite quantities of energy; that hindrance of any damming up of these energies is one purpose of the mental apparatus as well as keeping at a minimum point the total amount of the excitations to which it is subjected. You see here the "repression" principle. Something of this sort is sold by fortune tellers in their recipes as to "how to prolong the pleasures of copulation."

The Topographical:—"Psychoanalysis regarding the mental apparatus as a composite instrument is out to see at what points the various mechanical acts take place. The mental apparatus is divided into

The "id"—the reservoir of instinctive impulses; processes all unconscious.

The "Ego"—that most superficial portion of the "id" and the part modified by the influence of the external world; consciousness, the function of outer layer as this is concerned with the perception of the world at large.

The "Super-ego"—this is the development of the "Id" and dominating the ego, represents the inhibitions characteristic of man.

Justification of much of "psychoanalysis" arises, say its adherents from the discovery that dreams, and mistakes and general parapraxes of normal men own the same mechanism as neurotic symptoms. But it is in the interpretation of the symbolism of these dreams that psychoanalysts dig up the dirt, the mire and

the slime and spatter it far and wide with an ingenuity that is little less than black magic and goats. "That way madness lies."

"Psychoanalysis" holds that the unconscious censorship of the mind makes repressions that yet are not destructions of mental tendencies that display their influences by circuitous paths and that from this indirect or substitute gratification of these repressed impulses arise painful neurotic symptoms. In other words the world is not waiting for the sunrise but for the phallus and the kteis,—and how!

Now since for cultural reasons the severest repression falls upon sexual instincts, "psychoanalysis insists that neurotic symptoms are oftenest substitutive gratifications of repressed sexuality. "Follow your impulse and you will be right" is a tenet laid down by a famous "psychoanalyst" to a Chicago patient. If you want to be a pervert be a pervert, just so long as you are sexy and suit yourself is the idea.

"Psychoanalysts" insist that,

It is incorrect to think sexual life in man does not exist prior to puberty.

That signs of sex life can be detected from the moment of ex-uterine existence. (Suckling is said to be one of the first.)

That the early period reaches its culmination at the end of the fifth year.

That the latency period extends from that time until puberty, that climaxes the second period.

That this double onset of development is exclusive with man.

That the subsequent development of character or of disease depends upon an individual's inherited sexual constitution as well as the totality of all childhood experiences.

That the "primacy of the genital zone" is attained only after a long and involved period of development and that all of this affects the mental apparatus.

That a "neurotic inhibition of function depends upon quantitive considerations.

That the conflict of a child with his parents is a sex conflict, and that the Oedipus complex, so harrowingly detailed by O'Neill in his "Mourning Becomes Electra" is exampled in the life and woes of many a neurotic.

That "reactions against the instinctual demands of the Oedipus complex are the source of the most precious and socially important achievements of the human mind." Freud and Jung, however, mince no words nor waste any syllables in their contention that there should be open recognition of the fact that many neurotic disturbances come from repressed sexual desires between parents and children or other incestual alliances. Modern America looks with less favor even on legends of incest than do those older lands from which "psychoanalysis" has emanated. Do we want such engrafted theories? Are they true of the American nation, or are we not of a different mental contour just as our craniums measure differently than those of the African negroids?

Psychoanalysis pins much faith in the idea of "Transference." This term covers a salient peculiarity of many neurotics. Every physician is familiar with the neurotic's development of an emotional attitude towards the physician, —sometimes of affection, sometimes of hostility. Psychoanalysts say this evolves from an Oedipus complex that has been repressed, and that proof of the fact that former childish dependence has not been lost is evidenced by this transference of dependence and affection or rebellion. As transference coincides with suggestion, by making use of this instrument the psychoanalyst induces the patient to overcome his internal resistances, do away with his repressions and secure a second or adult education that will act as a correction to the education secured as a child.

The farther you go into the subject the more surprises you get. By and by you learn how the "psychoanalyst" insists upon the sublimation of some instincts as a dominating influence over others, and it is surprising still to observe how many ways there are in psychoanalysis to see to it that the instincts of sex shall be sublimated to the nth degree. As a matter of *fact the sublimation of sex receives its highest accolade in the neat system of psychoanalytical symbolism by which a sex symbol is observed in every act, conscious or unconscious and in all creation, animate and inanimate.*

What of the mind steeped in psychoanalysis that is taught to see a phallic symbol in everything the eye or the hand or the body touches? When it is worked out by Freudian theories—even though mentioned first as the symbolology of dreams that "a hat signifies the male genital

symbol, and a room the female genital symbol, a bureau drawer also the female genitals, etc., etc., ad libidum ad libido'' does that not seem pabulum of far too gamey content for the youthful medico seeking how best to serve his fellow man? When you are taught in the Freudian mysteries that a desire that may seem evil at its outset will prove good in the end if you feel at the time that it is your desire and if you follow it at the moment of excitation, what, let it be asked is there in such psychology that youth can cull the grain and throw aside the chaff? Truly the line between psychiatry and charlatanry needs a bivouac of vigilantes tried and true.

And it is well to remember ''A little learning is a dangerous thing. Drink deep or taste not the Pierian spring.''

The obvious fallibilities of psychoanalysis in its present state of development would seem to be a tendency away from the strictly scientific and towards the emotional, the charlatan and the monetary. Mankind generally in this day and age wishes to yield less to that sexuality that psychoanalysts demand shall be ceded and it remains to be proven whether the psychoanalysts or the preachers are right as to what constitutes that which ''as Caesar's shall be rendered unto Caesar.''

To the average American physician it would seem at present that there are other courses needed in the medical curriculum that are far more important and far more American than psychoanalysis, unless the introduction of such a chair could prove the fallaciousness of its doctrines as an elemental unit in the machinery of American life. After all we are basically a nation of home-makers and home-lovers rather than one of exotic perverts and prostituted exhibitionists.

The danger to us lies in our credulity. An American will try anything once, especially a remedy, real or fake, for real or imaginary bodily ills. We are a nation of patent medicinists, as every physician knows. We ar a nation that as individuals admit no inferiority to any other man, and we like to dabble in big sounding things. So psychoanalysis goes over great. To begin with it is ''imported.'' Our own native psychologists do not hand out such pabulum as the Swiss and Austrian experts nor do they win the rabid yet moneyed following of those men who would debase the moral outlook under the pretense of mending the body and patching up the mind. Freud's teaching has been stigmatized as ''inherently absurd'' and his whole scheme of treatment accused of being ''misshapen phantasy.'' Freud's propensity to the sexual is shared by his fellow psychoanalysts. In the final analysis it all reminds you of bad little boys writing dirty words upon the barn. It may make crazy folk sane and sick folk well but it seems a little doubtful.

CORPORATION PRACTICE OF MEDICINE IN ILLINOIS DECLARED ILLEGAL

Out of the conference rooms of medical societies and into the courts of the land go the arguments and the decisions as to the rights of a corporation to practice medicine.

In one of the first legal attacks in the crusade to drive corporations from the practice of medicine, the advantage went for the nonce to the medical profession and hence, it is to be hoped that the practice of medicine by a corporation was dealt its death blow Saturday, February 25, in the Superior Court of Cook County, by Judge Charles H. Miller, of Benton, Ill., a circuit judge from the southern part of the state, sitting in the Superior Court in the place of Judge Frankhauser, who was ill. The Court decided that the practice of medicine could not be carried on by a corporation even though the administration of the treatment was made for the corporation by physicians duly licensed under the Medical Practice Act of Illinois.

The suit was brought in the name of the People with Doctor Thomas Dyer Allen as relator, and was a quo warranto proceeding, instituted in the name of John A. Swanson the then state's attorney, for whom Thomas J. Courtney, the present state's attorney, was later substituted. The defendant in the case was the American Society for the Conservation of Vision, Inc. This corporation maintains offices in Chicago for the administration of treatment to persons suffering from faulty vision. Its treatment is administered by a physician duly licensed under the Medical Practice Act in Illinois. The contention of the People was that the Medical Practice

Act provided only for the administration of medical treatment by natural persons, and that the implication of the statute was that corporations were not to be used in maintaining offices for the treatment of diseases.

Harry Eugene Kelly represented the People and the Relator. John J. Kelly represented the defendant. Angus Shannon appeared as a friend of the court, and made an argument in the case in behalf of the United Medical Service, Inc. Frank J. Link appeared as a friend of the court in opposition to Mr. Shannon's contentions.

The case was presented on an agreed statement of facts, because there was no controversy on the question of what the nature of the corporation practice was.

The decisions of the various states, New York, Iowa, Colorado, California, Nebraska and Missouri, and several others, were considered. The contention was made on behalf of the defendant that it was merely conducting the business part of the maintenance of its office and that that was separate from the application of remedies by physicians employed for that purpose, in line with the decision in the Nebraska case. Counsel for the People took the view represented in the California case, that the practice of medicine is not to be divided into two parts, a business side and a professional side, but that it is a single unit, and that the law relative to the practice of medicine deems the public concerned with the payment of, and contract for, medical services as well as the physician's diagnosis and treatment of disease.

Judge Miller, in substance, followed the California doctrine, announcing that he was unable to divide the doctor's professional duties into business and professional parts, and that in his mind the professional duty was one thing, including all relations with the patient, financial and medical.

Accordingly, Judge Miller found that the defendant was guilty of "usurping the franchise of practicing medicine" by holding itself out in an office for the reception of patients, and by having them treated by a licensed doctor in its employ.

Judge Miller found the society guilty of unlawful practice and fined it $25, thus setting a precedent in the courts.

While this case is being taken to the Supreme Court by the defendant, action will probably be well under way against the recently incorporated "United Medical Service, Inc." at 25 East Jackson Boulevard, at the head of which is Dr. Joseph G. Berkowitz, long connected with the Public Health Institute, a pay clinic for venereal diseases owned and operated by a corporation of business men who employ a medical staff.

Also a suit for injunction is pending against the United Medical service by Dr. Frank J. Hurlburt; its members have been branded as unethical and called to account before the Chicago Medical society.

Editor's note: This court action is in line with what organized medicine in Illinois has been working at for 12 years. In the issue for November 1932 of the Illinois Medical Journal, attention was called to the fact that Illinois has been alert in legislative protest against corporations practicing medicine but the bar has done better for itself in professional protection: that the justice of a law inhibiting corporations from practicing medicine has been up for demonstration more or less continuously before the legislative body of the State of Illinois by Illinois doctors for twelve years.

Few lines of legislation have been more urgent. None is more pressing now. Of no active economic condition are physicians more acutely aware.

Failure met repeated efforts to secure the desired legislation. This is not necessarily calamitous. The writer continues convinced that if legislation now on the statute books can be and is enforced that the laws already enacted are sufficient. As in many other instances it is enforcement of the existing statutes rather than the enactment of new laws that is indicated. And enforcement, there is the rub.

For several years this has been said repeatedly in the editorial columns of the Illinois Medical Journal. Enforce the legislation we have now and stop the practice of medicine by corporations.

Among the active measures taken by doctors in Illinois to prevent corporate practice of medicine may be mentioned;—

Senate Bill No. 362 introduced in 1921 by the late Senator Wheeler;

Senate Bill No. 291 introduced in 1927 by Senator Mason;

Senate Bill No. 231 introduced in 1929 by Senator Searey of Springfield.

THE DOCTOR IS THE REAL "FORGOTTEN MAN"

For some months we have been hearing much of "the forgotten man." This catchy phrase can be, and has been, variously interpreted. To one group it means the farmer; to another the white collar man; to another the politician of one hue or another.

When boiled down, concentrated and analyzed to the last degree, we feel safe in claiming that "the forgotten man" can mean nothing but the man of medicine.

For some years the practice of medicine has been going through a critical period, a period that has been almost catastrophic in its dire effects. The invasion into the domain of legitimate medicine of the various cults practicing their unethical but very efficacious advertising methods has seriously hampered the legitimate physician. Bound by the iron dictates of his code of ethics he has been placed at a serious disadvantage. To this grave handicap has been added the great multiplication of free clinics, hospital centers, tuberculosis and infectious sanitaria, and a host of other agencies for the free treatment of patients, many of whom are amply able to pay a fee. The activities of the social service agencies has done much to alleviate this evil, it is true, but there is much more that can and should be done.

Always the last to be paid, largely because of his unbusiness like methods and the general ignorance of the medical man concerning the principles of medical economics, today, he is not being paid at all because of the deplorable effects of the period of financial depression. Detail men who are constantly entering the offices of the doctors are unanimous in asserting that there has been a remarkable and very serious slump in office practice everywhere. It is an open secret that a large number of doctors are months behind in their office rent, and that many of the large professional buildings have been carrying many of their tenants for varying periods, rather than close their offices and thereby empty the buildings. Many physicians who were for years specialists in various lines have been compelled to return to general practice in order to make ends meet in the struggle for existence. One of the detail men only recently told us that it was pathetic to know the large number of doctors who did not know where their next dollar was to come from.

Here is a great evil that should and must be met. While Congress is appropriating vast sums to meet similar exigencies in various business classes, notably the farmers, the railroads and the banking institutions, nothing is being done to alleviate the great suffering in the noblest of all professions. And the deplorable fact is that the suffering medical man, because of his inherent pride and fear of imperiling his professional standing, as well as his proper aversion to entering the bread lines is heroically bearing his trial without uttering a word.

Are we not justified in claiming that the medical man is the real "forgotten man?" Are we not correct in calling attention to this very evident and serious social condition? No doubt there are millions of citizens who do not realize that the great medical profession is facing a grave crisis, and who would take prompt and effective action if their attention were called to the deplorable state of affairs.

DOCTORS COMPLAIN BITTERLY OF ANNOYANCE FROM MEDDLING BUREAUCRATIC POLITICALLY SUPERVISED INSPECTORS

Mail after mail brings to this office protests from the profession at large over politically supervised inspectors who come meddling around to find out this, or to record that or to get statistics upon personal, private and intimate details of tax-paying, law-abiding citizens whose privacy has become the legalized dump heap for no end of political ragpickers.

There is nothing surprising about this state of affairs. It was bound to come as a result of bureaucratic red tape with which the United States has been increasingly enmeshed. Unless the doctors of the country make up their minds to protest with votes instead of with voices (to which nobody hearkens, not even the policemen), it is going to be so much worse that there will not even be freedom of com-

plaint left as even a partial privilege. The condition that is aggravating everybody right now is exactly the one that the editor of this Journal as been prophecying would maintain, unless the profession took steps to stem the tide of over centralized control. For a quarter of a century this condition has been inveighed against, warned against and even prayed against. The editor has been a nuisance to himself in his persistency of preachment that dates back to the early years of this century.

In the issue of the ILLINOIS MEDICAL JOURNAL for September, 1911, the present editor prophesied the development of the present economic conditions confronting the profession. This prophecy was repeated again in 1913, 1914, 1915 and annually thereafter, and reiterated again and again in public lectures and in editorials in the interval up to the present day. At last medical journals all over the United States now enlist in this same fight for those rights of the medical profession that so drastically affect the public welfare. Foundations practicing medicine, corporations entering into the practice, also university medical schools competing in practice with their own alumni, endowed and partly endowed institutions and pay clinics in the practice of medicine, and an adaptation of the "chain store idea" in medical practice and in hospitalization, lay dictation of medical practice, legislative fiat in the practice of medicine, overstandardization and too much centralization of power in Washington, in state capitals and other general governmental units, all these and hundreds of other similar menaces today occupy much editorial attention.

TIME IS ARRIVED FOR THE MEDICAL PROFESSION TO CLAIM A REASONABLE SHARE OF ECONOMIC FREEDOM. WE ARE IN THE BONDAGE OF DISCRIMINATORY LAWS.

Shameful though the admission may be, we are in the bondage of discriminatory laws, to an unprecedented extent. Time is arrived for the medical profession to claim a reasonable share of economic freedom, and to protest effectively and by the ballot against further meddlesome and restrictive legislation.

How else than by political maneuvering can these advantages be secured? There is no question of the power that physicians possess to command relief by this method. The voting booth is uncannily specific. It remains to be seen how soon the profession uses this power and influence or what longer delays will ensue. If each of us waits for the other to do something, accomplishment is impossible. If each of us as a man and citizen realizes the necessity for individual effort, then results will follow quickly and effectually. Our vast chorus of voices and our latent power must be concentrated in one single note of which the unified efforts must seek as an end that medicine in America may be profitably and pleasurably practiced by individual physicians, freed from the bondage of discriminatory laws, relieved of the burden of inequitable taxation, and liberated from the coils of purposeless technicalities.

WE HAVE TOO MANY LAWS

In his minority report to the Wickersham commission, Henry W. Anderson writes: "They (the American people) have created the largest body of laws, and the most complex system of government now in existence, as restraints and control upon individual and social conduct, but every stage in their development has been characterized by a large and ever increasing degree of lawlessness and crime."

There is too much tendency in this country now to be spoon-fed. All that any government can do will be infinitesimal compared with what business can do for itself.

PATERNALISM IS RUNNING WILD IN AMERICA

There are many imperfections in human kind and in the relations existing between men. Yet why should the Government, immediately upon belated perception of these imperfections, presume that a cure be effected only through its panacea of law-making? We agree with ex-Senator Reed when he said "There are some who believe in this sort of thing, who think the government should regulate everything. They believe that if congress were to pass a bill directing all men to be happy, every human face would hereafter wear a smile of perpetual joy. These enthusiasts seem to believe we can disregard human nature, the experience of ages, the environments of life, the condition under which God Almighty planted human beings on this earth, and all that we have to do is to pass a bill, and all will be serene and lovely. Unhappily the epitaph of all such ventures is failure! failure! failure!"

Governor Albert C. Ritchie of Maryland, an outstanding candidate for the presidency before the American people, said in a recent interview in the *Chicago Sunday Tribune* of November 29, 1931:

"Our government has become the most regulatory in the western world, outside of Russia and Italy. Inspectors and spies and official regulators follow the 100 per cent. American from his mother's bosom to his last resting place in the bosom of the earth.

"Out of the very necessity of things, centralized government becomes a government of bureaus, and a government of bureaus becomes a government of clerks and stenographers, of field agents, inspectors, and red tape. And one bureau breeds another.

"The federal government must be deflated. We have inflated it at the expense of the states. When you weaken the parts you weaken the whole."

BUREAUCRACY

In his talk before the Illinois Manufacturers' Association in Chicago, December 8, 1931, Governor Ritchie said:

"Think of our army of federal employees now rapidly approaching the million mark, with a cost of government that has grown fifteen times as fast as our population and is now running into astronomical figures, imposing a burden of taxation that is intolerable. Private business which foots the bill does well to ask itself why, wherefore, whence and whither.

"One hundred and fifty bureaus and endless commissions prey upon you and feed off you. Twenty-five different grades of federal officers scattered through the various departments can hector you, arrest you and ruin you. Not a phase of your life from the cradle to the grave, from the cellar of your home to the wallet in your pocket, into which they cannot pry."

"EXPERTS CLUTTERING CAPITAL"

Warning the manufacturers that a superstitious belief in the efficacy of commissions of "experts"—he gave that word a withering touch—is cluttering the machinery in Washington, Mr. Ritchie said:

"There is too much faith in government as such, and too little in self-operating social forces and ideals which among a free people can produce more progressive results than can any government.

"A government might be omnipotent, but it cannot be omniscient. What is done in government is always done by mortals, by somebody in the flesh, who has all the weakness of the flesh.

"The common good can best be attained by the steady flow of natural forces and the free play of our common liberties, with the least possible interference by congresses or kings."

And to quote President Hoover according to the *Chicago Tribune* Press Service:

"Organized minorities," Mr. Hoover said, "have surrounded congress with a confusing fog of opposition," and as a result "the inchoate voice of the public gets nowhere but to swear at bureaucracy."

FOR STATE RULE BY STATES

Mr. Hoover said that while some federal encroachments on state authority have been necessary, many functions now performed by the federal government would much better be left to the states.

The *Washington Star* a few years ago remarked: "There are now 10,000 operative federal laws; 500,000 active state laws and 5,000,000 city ordinances in force, with 200,000 law-makers constantly grinding out more." The paper also quotes William M. Bullitt, in the *Journal of the American Bar Association,* as stating that the laws of the forty-eight states in 1923 filled 3,576 volumes of 1,592,000 pages.

Practically every form of human activity, however natural or harmless, is regulated by law, and there are insistent demands for further regulations.

James M. Beck, representative in Congress from Pennsylvania and former Solicitor General of the United States and America's outstanding constitutional lawyer, at the Chicago Board of Trade dinner, November, 1931, warned of sovietism in the United States bureaus and called for return to old simplicity. Speaking of State Socialism he remarked the folly of converting our limited government, with its constant recognition of the value of individual initiative, into a bureaucracy, which destroys the individual, of which the Soviet Republic, so-called, is the final and greatest expression. He called upon the coming congress to "bury the present experiment of governmental social-

ism beyond the possibility of resurrection" and also asks that a "patriotic coalition of the leaders of both parties be formed to save America from the destructive follies of State Socialism."

"What can save America from this fate? Only an awakened sense of constitutionalism in the hearts of the American people. They should look to themselves and not to governmental agencies for salvation."

When a new bureau once fastens its tentacles on the treasury, its hold is like that of a dead hand. Establishment of the Commerce Commission, says Mr. Beck, "was followed by a long series of statutes to create governmental agencies to regulate the business, and even the life of the individual, until today there are 150 such bureaus in the federal government and the scope of their activities ranges from the cradle to the grave."

UNITED STATES PERILS BUSINESS FUTURE

R. V. Fletcher, Vice-President and general counsel of the Illinois Central Railroad, before a meeting of The American Railway Development Association, Chicago, 1931, said:

"Let the American people awaken to the danger of drifting into a condition of bureaucracy which will stifle all our initiative, ending that force which has made our nation great," Mr. Fletcher warned. "The entry of the government into private business is the most important thing holding back the growth and progress of the railways."

He traced the growth of this interference in business, pointing out that it first started with the railroads and that it has gradually grown until it now affects some 160 industries, either through complete domination or partial control. It has been especially virulent, he said, during the last ten years.

NEURODERMATITIS OR IRRITANT DERMATITIS?

HERBERT RATTNER, with comments by WILLIAM ALLEN PUSEY, Chicago (*Journal A. M. A.*, Dec. 3, 1932), presents in detail the case of a young man in whom, two weeks after he married, an acute dermatitis on the face, neck and upper half of the body developed. He had a psychoneurosis, an anxiety state, and it was assumed that the dermatitis was a neurogenous dermatitus. It was subsequently shown that the acute dermatitis was excited by perfumed cosmetics which his wife used. Exception is taken to the use of the term neurodermatitis for a so-called dermatitis of neurogenic origin, as it is confused with the entity neurodermite (Brocq).

THE SHIFT IN THE PRACTICE OF MEDICINE THAT MAKES THE MODERN PRACTITIONER ONLY A CRIPPLED PART OF A GREAT COMMUNITY MACHINE

When such a venerated and venerable practitioner of medicine as the late Dr. Frank Billings finds it necessary to take to the rostrum to inveigh against the mechanistics rather than the medicine of the profession to-day it is time for doctors generally to ponder on what he says.

This Past-president of the A.M.A. not only knew what he was talking about but he was not afraid to talk. Knowledge and a clean conscience as well as an honest fear for the future of the profession led this scholar and scientist to the pronouncement of the warning against the ruthlessness and widely spreading evil of the shift in the processes of the practice of medicine that tends to make the modern practitioner only a crippled part of a great community machine with many intricate specializing gadgets instead of a great and inefficient individual machine of protean service.

There cannot be too much reiteration of Dr. Billings' insistence that "The value of the application of group practice is limited. I believe that this true. Ostensibly the group is formed for the avowed purpose of providing all patients with an accurate diagnosis and efficient treatment. This is made possible through the services of clinical and laboratory specialists and available equipment to obtain a precise knowledge of the physical and functional condition of the patient and to afford efficient general and special treatment, including hospital care, if that is deemed necessary. First, let us inquire how many patients of an average community require the application of these precise methods of diagnosis to arrive at a true understanding of the real condition, and how many of these patients require hospital care. Based on long experience in consultation and in general hospital and private practice, it is my opinion that a correct anatomic and functional diagnosis can be made in from 80 to 85 per cent. of all the patients of an average community by a qualified, industrious, painstaking general practitioner by the sole applica-

tion of the trained mind, the special sense, the hands and an always available simple laboratory equipment. Likewise, approximately 80 per cent. of the patients will receive efficient management and treatment as ambulatory or house patients. Of course, it is advantageous that every hospital, with the possible exception of some very small or special institutions, should have the necessary laboratories, equipment and trained technicians to make these precise examinations and to afford adequate treatment of the few patients who really require their use.

"The truth is, the splendid knowledge which modern medicine has made available in the diagnosis and treament of disease is misapplied frequently, with unfortunate derogatory effect on the public and the tendency to demoralize some members of the medical profession. This method of practice and the false impression gained by the public through private and public group medical and surgical service with the usually attendant high cost, are tantamount to commercialism. The public is slowly but surely becoming aware of these conditions in medical practice. Evidence of this point of view of the public is expressed by lay people in cities and in the country. Frequently the best families of the city inquire whom they may secure as a family physician. In this connection we must remember that the splendid character and accomplishments of the United States government are due in no small measure to the character-forming factor, the family home. The modern tendency in the cities, especially among the foreign-born population, is to seek tenement habitation which tends to minimize the value of family life and to disregard the responsibilities of citizenship. This tends to engender the worst forms of socialism, and disregard of individual and community reponsibility in the observance of the laws of sanitation, and also to promote disease and poverty. The future safety, prosperity and health of the people and the maintenance of all the benefits which this republic affords demand the preservation of the character-forming family home.

"As a factor in this necessary principle of community welfare, the family physician and his domiciliary visits are essential. It is recognized that the general practitioner, both in the city and in the country, lacks sufficient hospital facilities in the care of his patients. This lack is evident in some of the rural districts of practically all the states of the Union. Some feasible constructive program should be adopted which will afford justice to the taxpayers and to the members of the medical profession, and which will provide better hospital and diagnostic facilities where they are needed. We must, however, keep in mind the fact that a majority of patients do not require the application of unusual and refined methods of diagnosis and also that a majority do not require hospital care."

DETOURS AND MUDHOLES IN GROUP HOSPITALIZATION

Modern Hospital Magazine under date of February 15th comments editorially how hospitals must avoid detours into commercialism. We quote:

"The president of the Medical Society of the County of New York in his inaugural address last month made the following statements: 'No other proposal that has been put forth to reduce the costs of illness has the practicability of the Hospital Information and Service Bureau's plan for the group purchase of hospital care. If the hospitals undertook to provide this type of coverage, it has been computed that they could, without loss, supply twenty-one days of semiprivate care for an annual charge of ten or twelve dollars. The premium covers all institutional expense except medical service, special nursing and blood transfusions. . . . One of the major virtues of this proposal for group provision of hospitalization is that it does not interfere in any way with the freedom and privacy of the relationship between doctor and patient. . . . The Medical Society of the County of New York is prepared to bend its efforts toward the successful application of any practicable, self-supporting scheme to reduce the costs of hospital care to the middle class.'

"Hospitals should be gratified at this expression of medical opinion, which contrasts with the recent obstructive attitude in the neighboring city of Philadelphia, of which the *Philadelphia Record* said editorially in its issue of January 21:

" 'The doctors have a perfect right to oppose any such schemes as these. But they

have these rights only if they present plans of their own for coping with the serious situation which these projects were designed to meet.

"'We know that 12,000,000 Americans can afford no medical attention whatever. We know that to at least 50,000,000 more serious illness means financial distress if not actual loss of home and life's savings.

"'These human beings must be cared for. Some means of squaring their plight with the interests of the hard-hit physicians must be found. Some means will be found.'

"Hospitals should not be diverted from their purpose of trying out plans of importance to themselves and to the public because of the fear of something new or because voices are raised pointing out a long succession of possible evils. Hospitals should look to their own state and national bodies for the formulation of principles under which group hospitalization should proceed, principles such as will control real or supposed dangers. It is wise to avoid unnecessary detours and not to stall because of mudholes.

"The very importance and timeliness of the plan of group hospitalization have given rise to issues that hospitals must consider carefully. There is the danger of commercialism on the one side as well as that of obstruction on the other. The prime reason for any group hospitalization plan is the same reason that called hospitals into being, namely, service to the sick. A group hospitalization plan should enable thousands of persons to pay for service in a self-respecting way who now must receive it as charity or who contract debts which they cannot pay in whole or in part. The mere fact that thousands of people feel the need of making provision for the expense of a possible stay in a hospital opens the door of opportunity to the commercial agency and sometimes the commercial adventurer. There seems to be a growing number of this brood who for their private profit are trying to sell group hospitalization to individuals and to enlist hospitals in their enterprise. 'Four cents a day will do it' annouces the sales literature of one organization. Perhaps these promoters cannot be put out of business. But they can be avoided or controlled.

"It is well for hospitals to remember that in a city of any size where there are several hospitals, no institution can wisely undertake group hospitalization alone. It is well to remember that skill and experience are necessary in order to organize a plan so as to secure the actual participation of wage earners and other employed groups or organizations who will be the beneficiaries of the plan. The skill and experience of men who know how to organize and get such a plan under way must be paid for, but the important point is to avoid placing the control of the plan in the hands of any group not motivated by the spirit of the hospitals themselves—public service. Hospitals must avoid detours into commercialism which are likely to add 50 per cent to the cost to the patient and to involve promises without performance."

DOCTOR WILDER, DEAN OF OPHTHALMOLOGISTS

The Eye, Ear, Nose and Throat Section of the Illinois State Medical Society at the Annual Meeting in Springfield complimented Dr. William H. Wilder of Chicago, the Dean of Illinois Ophthalmologists, by holding their meeting in his honor.

At the last moment Dr. Wilder found himself unable to be present owing to a serious illness in his family.

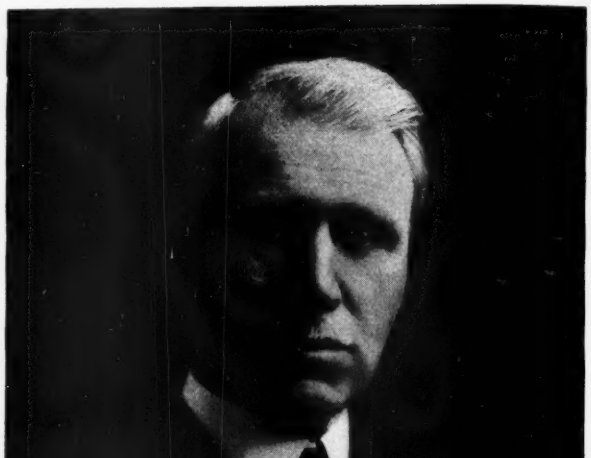
A handsome specially bound copy of Religio Medici inscribed with the autographs of all the members of the section was presented to Dr. Wilder.

Following are the addresses made at the annual dinner of the section held at the Abraham Lincoln Hotel:

Dr. Michael Goldenberg: Back in 1908 when the late Dr. Beard was chief of staff of The Illinois Charitable Eye and Ear Infirmary I was assigned to Dr. Wilder's service. I recall very distinctly reporting to him on the second floor as he came out of the dark room. After a few preliminary questions, he asked me if I knew anything about ophthalmology. Having just passed a civil service examination I felt that I knew much, but for once expressed myself with the rather modest reply; that I could tell the difference between a swollen and a cupped nerve head. This reply brought a quizzical smile to Dr. Wilder's features and I was put to work. I soon discovered that I did not know

quite as much as I thought I knew and than an opportunity to learn now presented itself that I must take advantage of. That Dr. Wilder is a great teacher, every young man who has come in contact with him knows and appreciates. I found this out very early and as a result I was always very close when any case was discussed. He possesses that happy faculty that all successful teachers should have, that of simple explanation.

His systematic method of examination, attention to minute detail and analysis of these minutiae, tearing them to pieces as it were and then gradually putting them together was an inspiration to me. His clinical judgment and surgical technique we all recognize and I am quite sure his success can be largely attributed to these factors plus the inherent qualities necessary for such success. His preoperative and postoperative care of a case was to me the natural manifestation one may expect of a skilled workman who takes pride in his finished product. It was not uncommon for Dr. Wilder to work at the Infirmary until very late in the afternoon, probably at the expense of his private practice. He was my chief from 1908 until he resigned from the Infirmary staff and I naturally feel deeply obligated to him and possess that reverence that I feel a student should have for his teacher. I am quite sure what little ability I have disclosed in ophthalmology or surgery is largely due to the training I received while working under him.



WILLIAM H. WILDER, M.D.

Dr. Harry S. Gradle: It is rather a painful pleasure to be called upon in this capacity, for two reasons; In the first place because Dr. Wilder is not here; in the second place, it is painful to inflict extemporaneous remarks upon this or any audience. However, I am very pleased to add my tribute to Dr. Wilder and to his ability. He was graduated in Cincinnati forty-eight years ago, and later went to England and served his apprenticeship under Nettleship for two years, during which time he developed the habits of keen observation that he has retained all his life. Later he came to Chicago, worked his way up through the various clinics—the Infirmary—then became professor of Ophthalmology at Rush. While there he developed this school which means so much to him. There are many men in Chicago and scattered throughout this section of the country who owe their ophthalmological training to Dr. Wilder and his teaching at Rush. He did a great deal for them. Rather than laying down academic methods of instruction, he believed in allowing a man to make his own observations, and if he had difficulty in deciphering his findings, was always ready to help in the analysis and diagnosis.

Dr. Wilder is eminently a clinician, and his keenest faculties have been devoted to clinical work and teaching. He is not a research man, for there are very few men who can combine

clinical ability with original laboratory investigation. It is far better for us that he did not go off at a tangent on research work, for then we would have missed the clinical knowledge he has been able to impart to us.

To us of this state, Dr. Wilder has always stood for the nicer things in ophthalmology and the finer things of life. He occupies a plane almost of his own. To a great extent one of the best influences came into being through his efforts, namely, the American Board of Ophthalmic Examinations, of which he has been secretary for many years. It endeavors to find out whether an individual is capable of being classed as an ophthalmologist —not necessarily a research man, not necessarily the last word in ophthalmogical knowledge—but the Board wishes to know whether or not this man is safe to turn loose upon the public as an ophthalmologist. Owing to his insistence upon high standards this Board has accomplished a great deal. It has shown the way in graduate teaching, so that the younger ophthalmologist becomes thoroughly familiar with the fundamentals of this subject as well as the clinical application of these fundamentals. The undergraduate teaching, the necessity of general medical knowledge before specializing, the general rounding out of ophthalmology in every respect, and the maintenance of a high ethical standard, are insisted upon by the Board, due largely to the standards set by Dr. Wilder in the beginning and upheld to this day. I think we should congratulate ourselves upon our association with a man of that character. To come under his influence and recognize what he stands for is a great privilege, and I feel keenly that he is not here in this little gathering held in his honor as Dean of Illinois ophthalmologists.

FIRE DEPARTMENT AS A MEDICAL AID

A fire engine came clanging down the street, followed by a hook and ladder company, and bringing up the rear an insurance patrol with tarpaulins in readiness.

The cavalcade came to a roaring stop before a hospital. The hose was fastened to the corner fire plug and the firemen with the end bearing the nozzle rushed into the lobby. They were confronted by the excited superintendent who exclaimed: "What does this mean, the hospital is not on fire!" "Fire nothing," replied the firemen, "we called here to give Kate Smith an enema."

CHICAGO MEDICAL SOCIETY DECLARES THE UNITED MEDICAL SERVICE AN UNETHICAL ORGANIZATION

At the regular monthly meeting of the Council of the Chicago Medical Society, February 14, 1933, the following resolution was unanimously adopted:

WHEREAS, Chapter Two (2), Section Four (4) of the Principles of Medical Ethics of the American Medical Association states, "Solicitation of patients by physicians as individuals, or collectively in groups, by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communication, is unprofessional," and

WHEREAS, on May 1, 1922, the Chicago Medical Society added a supplement to the Principles of Medical Ethics of the American Medical Association which states: Section One (1) "any individual, or any institution, private or public, or corporation, or association, or group of individuals under whatsoever name, which shall solicit patients by circulars or advertisements to the general public, shall be considered to act contrary to the best interest of the public and the profession and shall be deemed unworthy of the approval and support of the Chicago Medical Society," and

WHEREAS, Medical Policy No. 15 adopted by the Council of the Chicago Medical Society February 9, 1932—"Association with any institution or organization which advertises medical services to the general public, in any manner whatsoever, shall be deemed unethical," and

WHEREAS, the United Medical Service, Incorporated, is a corporation practicing medicine at 23 East Jackson Boulevard, in violation of Chapter Two (2), Section Four (4) of the Ethics of the American Medical Association as quoted above and of Section One (1) of the Supplement thereto adopted by the Council of Chicago Medical Society, May 1, 1922, and Medical Policy No. 15 adopted by the Council of the Chicago Medical Society, February 9, 1932,

Therefore, Be It Resolved, that the United Medical Service, Incorporated, is declared to be an unethical organization under the Rules of the American Medical Association and the Chicago Medical Society, and

Be It Further Resolved, that any member of the Chicago Medical Society giving aid to or supporting or abetting said United Medical Service, Incorporated, or receiving any emolument or compensation therefrom or rendering any service therein or thereto, is guilty of unethical conduct under Chapter One (1), Section Seven (7) of the By-Laws of the Chicago Medical Society.

CONGRATULATIONS TO THE ILLINOIS STATE MEDICAL SOCIETY

For several years the Illinois State Medical Society has conducted a successful program among its members to increase their interest and participation in public health and school health activities.

At its last annual meeting the section on Public Health and Hygiene presented papers as follows:

"A Plea for Systematic Health Education"
J. Howard Beard, M. D.

"The Value of Health Education as Seen by the Layman"
Mildred Durkee Lancaster

"The Effectiveness of Public Health Education From the General Physician's Point of View"
David J. Lewis, M. D.

"Health Education from the Viewpoint of the School Official"
Prof. J. B. McManus

"The Value of Public Health Instruction and Public Health Work as Seen by the Public Health Official"
B. K. Richardson,
Illinois Department of Public Health

This is a significant program. It is presented by the State Medical Society. It is representative of the essential participating agencies in a cooperative program for health promotion. It is indicative of proper team work between the medical and educational professions. It is sound. It sets a good example for other States to follow.

THE SCHOOL PHYSICIANS' BULLETIN extends its hearty congratulations to the Illinois State Medical Society on its splendid work.

School Physicians' Bulletin
February, 1933

TOO MANY DOCTORS

The following resolution was passed by the Fulton County and Cobb County (Georgia) Medical Societies at their regular meetings a few weeks ago after the reading of a paper entitled "The Economic Status of the Medical Profession," which appeared later in the Journal of the American Medical Association, October 15, 1932, Page 1358, under the Department of Medical Economics.

RESOLUTION

WHEREAS, the medical profession of the United States is suffering losses all out of proportion to its ability to endure, and

WHEREAS, our losses are not so much due to the financial depression as to over production of doctors and decreased demand for paid medical service generally, and

WHEREAS, the production of doctors is far excess of the population increase,

Therefore, we the members of the_____ County Medical Society respectfully request the Medical Association of _____, the other State Medical Associations, the Southern Medical Association and the American Medical Association to adopt this or similar resolutions requesting the Medical Colleges of the United States to reduce the number of graduates each year until the law of supply and demand has been fully complied with. The number of graduates to be determined by a national committee appointed by the President of the American Medical Association.

Respectfully submitted,

_____ M. D., President,

_____ M. D., Secretary.

PREVENTION OF PROSTATISM

JOSEPH F. MCCARTHY, New York (*Journal A. M. A.*, Dec. 3, 1932), states that it is necessary to have an acute awareness of the advent of prostatism and to remedy the condition by some method such as the cautery punch operation, and thus to obviate the vicissitudes incidental to progressive enlargement of this gland, to enhance the economic usefulness of the patient and to insure serenity of mind to him and his family, when his mental capacity is at its peak and his physical resistance is approaching its inevitable decline. This, it seems to the author, is the problem of the immediate future, not of urologists, but of the medical profession in general, because it is they who first encounter such patients, and the success of this educational campaign depends on their perspicacity and capacity for cooperation.

THE SANE AND PROPHETIC LAY PRESS EAGERLY FIGHTS FOR THE MINORITY REPORT OF COMMITTEE ON COSTS OF MEDICAL CARE

The support that the lay press, that has sane perspective coupled with the gift of vision and near-prophecy, is lending to the minority report of the committee on costs of medical care is marvelously exampled in the Editorial "Political Medicine" published in the Ladies Home Journal for February, 1933.

So apt are its citations and parallels that the liberty is herewith taken for practically complete reproduction. Every sentence tells.

The editorial is written by Loring A. Schuler. We quote herewith:

POLITICAL MEDICINE

"The Journal has commented frequently and hopefully on the studies that have been made during the past five years by the Committee on the Costs of Medical Care. We believed that out of all the effort and expenditure involved there would surely come some solution of the twofold problem presented by the inability of a majority of people to pay present high costs for the cure of illness, and the collateral inability of doctors to earn incomes commensurate with the expense of their training.

"But the mountain has labored in vain; it has brought forth a mouse.

"As its major conclusions, the committee recommends, first, 'that medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists and other associated personnel . . . organized, preferably around a hospital, for rendering complete home, office and hospital care'; and, second, 'that the costs of medical care be placed on a group-payment basis, through the use of insurance, through the use of taxation, or through the use of both these methods.'

"In other words, state medicine.

"This is the report of the majority of the committee. It is combated by a vigorous minority, which quite rightly points out that 'there is nothing in experience to show that it is a workable scheme or that it would not contain evils of its own which would be worse than those it is supposed to alleviate. Above all there is no evidence to prove that it would accomplish what ought to be the first object of this committee, the lessening of the costs of medical care.'

"The medical profession has itself long stood in fear of the introduction of state medicine, with the building up of yet another bureaucracy to dictate its every action. The public has even greater reason to fear such a system. Already, according to the committee's statistics, taxation pays fourteen per cent of the nation's total bill for medical care—$514,500,000 out of $3,647,000,000. It is not difficult to conceive that a medical bureaucracy might rival the public-school system, or the Army and Navy, in its demands for tax funds.

"Health insurance should be voluntary, according to most of the members of the committee, though a minority is for the immediate introduction of compulsory insurance. For the benefit of those people who could not afford to pay for insurance, it is suggested that 'communities may well use tax funds,' and if the community cannot pay 'the committee recommends state financial aid.'

"And, perhaps in recompense for this tax-fund assistance, it is suggested that the hospital board to direct the general policies and assume responsibilities for the finances of the medical center might be 'elected by popular vote like school boards, or appointed by municipal or county officials.' Thus creating more political jobs, and quite likely in the end making the health of voters dependent upon regularity in support of the political boss.

"Meantime, what would become of those doctors who were not included in the medical-center staff? Some, of course, could continue to count upon the loyalty of patients who willingly or unwillingly would thus pay a double cost for medical care. But other physicians, forced outside the political pale, would surely find themselves dubbed as quacks, however reputable their practice might continue.

"The committee was supposed to find some way by which more adequate medical care might be made available to the public at lower cost, but nothing the majority has proposed even points the way. Far better the recommendations of the minority of the committee, who propose 'that government competition in the practice of medicine be discontinued and that its activities be restricted to the care of the indigent and of those patients with disease which can be cared for only in governmental institutions; to the promotion of public health,' and to the care of the Army, Navy and veterans having war-connected disabilities.

"And, of even greater importance, 'The minority recommends that united attempts be made to restore the general practitioner to the central place in medical practice.'

" 'We are opposed,' says the minority report, 'to all forms of medical practice which make it difficult or impossible to maintain the personal relationship of physician and patient. Neither do we agree with the majority that savings in the cost of medical care are to be made by eliminating the general practitioner or submerging him in a group. . . . In a group the general practitioner tends to disappear. The great majority of illness and injuries (about 85 per cent) are of such nature that they can be treated efficiently by any able practitioner with very simple equipment.'

"It is the opinion of the JOURNAL that the accomplishments of this five-year study are to be measured by the minority report and not by the majority with its Utopian and impractical schemes; that the family doctor is the most-efficient and least-expensive source of general health; that state medicine, with its demand for compulsory insurance and increased taxation, is in every way to be avoided; that the mass production of health, through any medical hierarchy or bureaucracy, is impossible; and that the simple health-insur-

ance plan presented last month in the JOURNAL in Paul de Kruif's article, How Well Can We Live?, is so far the most practical of all methods to enable our people to pay for illness.

"We have politics messing its often-dirty hands in business, in our schools, in most public affairs and some private ones as well. But may we be preserved from politics in personal health."

Perhaps the two most widely read popular magazines in the entire country are those sister-publications, the *Ladies Home Journal* and the *Saturday Evening Post*.

The two are staunchly all-American. In fact the *Post* was founded in 1728 by Benjamin Franklin, peerless patriot.

Both the *Post* and the *Journal* are rigorously set to stay on the right side of the fence where questions of pure patriotism and anti-socialism are concerned. So to thinking men the country over there is satisfaction in the editorial standpoint of these periodicals as to the proposed changes in medical practice as set forth in the majority report of the committee on the costs of medical care. In addition to "Political Medicine," under date of Feb. 4, 1933, the *Saturday Evening Post* on its editorial page remarks it is neither necessary nor wise to develop socialistic medical systems in this country.

In part the editorial says again:

THE BURDEN OF MEDICAL COSTS

"In a normal year, the American people spend more than three and a half billion dollars on medical services, and the livelihood of a million individuals depends upon furnishing this aid. But the people do not complain of medical costs because of the total or average amount; the burden is due to the uneven, irregular and unpredictable expense of sudden or extreme illness. Many families go for long periods of time without spending more than trifling sums for these services, and then an operation or serious illness, together with hospitalization, nursing, dentistry, X rays and other items, falls upon them with catastrophic financial violence.

"For more than five years, a committee of physicians and laymen has been studying the subject, and in its recent and final report, or rather reports, there is the sharpest possible difference of opinion. The majority, consisting of nearly all the laymen and the larger number of physicians, recommends that medical service be furnished mainly by organized groups of physicians, dentists, nurses, pharmacists, and the like, preferably centering around a hospital, and rendering complete home, office and hospital care. It further recommends that the costs be met through some form of insurance. A considerable minority of the committee, consisting entirely of physicians, emphasizes the evils of health insurance in European countries, deplores the adoption of mass-production methods in medicine and declares that the majority's whole idea illustrates what is an obsession with many people—namely, that 'organization' can cure most, if not all, human ills.

"Persons who belong to the more fortunate income groups, from five or ten thousand dollars upward, are heedless in not providing savings-banks accounts or other reserves of their own against the contingency of expensive illness. Also there is point in the recommendation of the minority report that less of the burden of caring for illness among indigent classes be thrust upon the medical profession itself."

While this is a less meticulously prohibitive editorial than that in the *Ladies Home Journal* its import is the same.

As has been said often in these columns there are no Santa Clauses in adult life. For what he gets the citizen pays and pays. Wisely indeed does Mr. Schuler write.

"We have politics messing its often dirty hands in business in our schools, in most public affairs and in private ones as well. But may we be preserved from politics in personal health."

Ay, ay, Mr. Schuler!

THE ANNUAL MEETING

The Eighty Third Annual Meeting of the Illinois State Medical Society will be held in Peoria, on May 16, 17, 18, 1933, the Sessions to be held in the Pere Marquette Hotel. Arrangements are well under way to make this a highly interesting meeting that will appeal to every member of the Society.

The host Society, the Peoria Medical Society, through its Committee on Arrangements, is doing everything possible to make the 1933 Annual Meeting one long to be remembered.

Each of the five Scientific Sections through their officers, are arranging attractive programs, using only members of the Society to take part in the deliberations.

The meeting will begin on Tuesday morning, May 16th, with the Annual Secretaries' Conference, which will begin at 10:00 o'clock. The officers of the Conference are arranging an unusually interesting program that will appeal not only to the officers of the component societies, but to other members as well. It is hoped that the attendance at this conference will exceed that of former years.

The General Opening Meeting which has previously been held on Tuesday Evening, has been changed to 1:00 P. M. when the President will

officially call the meeting to order. This session will be very brief, and will be followed by the Oration in Medicine. All Sections will be in session that afternoon from 3:00 to 6:00. Tuesday Evening from 6:00 to 8:30, will be given over to the Veterans Dinner, for which the Committee is arranging an excellent program, the Fraternity, Alumni, and Section Dinners, as desired. At 8:30 that evening, the Peoria Society will be host at the Annual Stag, and this will be entirely different from the usual entertainment of former years.

All Sections will meet Wednesday morning from 8:30 to 11:00, and from 11:00 to 12:00 the Oration in Surgery will be given. The President's Address will be given at 1:30 P. M. Wednesday, to be followed by Section meetings.

Wednesday Evening is to be used to honor our President, Dr. John R. Neal. The President's Dinner will be held at 6:30, and there will be no speeches during or following the Dinner. The President's informal dance, or cards, as desired, will follow, and occupy the remainder of the Evening.

On Thursday Morning, the five Scientific Sections will join together for a meeting which will interest all members, regardless of their specialty in practice. Forty minutes is available for each Section to present interesting subjects, and there will be time for discussion of all papers. It is quite probable that two or three of the Sections will arrange a symposium taking up the various phases of some interesting group of conditions, complete details will be announced in the April ILLINOIS MEDICAL JOURNAL.

The House of Delegates will have the first meeting at 3:00 P. M. Tuesday, to hear the annual reports of officers, councilors, committees, the presentation of resolutions, and other business which will be presented for action by the House.

The second meeting of the House of Delegates will be held at 8:30 Thursday morning.

Immediately following the closing session of the House of Delegates the President-Elect, Philip H. Kreuscher, will be inducted into office of President, by the retiring President.

All exhibits, both commercial and scientific, will be shown in the Pere Marquette Hotel, and arrangements are under way to have an excellent display which will be of interest to everyone at the meeting. Peoria is centrally located, and can be reached easily from all parts of the State by railroad, or automobile, and the attendance at this meeting should be in keeping with that of the meetings of recent years. The preliminary announcement of the program will be given in the April ILLINOIS MEDICAL JOURNAL and the official program with all details of the meeting will appear in the May number. Now is the time to begin to think of the Annual Meeting, the Members' own meeting, and the attendance this year will be a record breaker, as it should be.

Every component Society in Illinois is entitled to representation in the House of Delegates, and should elect delegates who attend meetings, so that they will have a voice in the transactions of that important Body, which is the real legislative branch of the Illinois State Medical Society.

The Peoria hotels are cooperating with the Committee on Arrangements and all reservations will go through their Committee. It is always advisable to make hotel reservations as early as possible, as the hotels will be taxed to their capacity during the meeting. Those wishing information as to hotel accommodations, or desire to make their reservation at this time, may do so by writing to Dr. W. A. Malcolm, Chairman, Hotel Committee, Peoria, Illinois, and the matter will receive prompt attention.

Plan now to meet your friends in Peoria, and do not forget that a suitable program of entertainment is under way for the ladies, and the Woman's Auxiliary will have their usual interesting program arranged for their members and guests.

END-RESULTS IN FRACTURES OF CALCANEUS

RUDOLPH S. REICH, Cleveland (*Journal A. M. A.*, Dec. 3, 1932), reports the results of surgical intervention for correction of pain and disability in eighteen patients with fractures of the calcaneus, nine recent and nine of long standing. Operative correction was performed immediately on the nine patients with recent fractures, and fusion operations were subsequently performed on all except two patients treated by the Böhler method. Arthrodesis in the old cases gives a uniformly excellent result and materially shortens the period of disability. In the recent fractures, anatomic correction fails to solve completely the problem of disability. For these an arthrodesis is, therefore, recommended as soon as possible after anatomic correction.

COMMITTEE ON ARRANGEMENTS FOR 1933 ANNUAL MEETING

Committee on Arrangements: C. G. Farnum, General Chairman; H. A. Vonachen, Vice-General Chairman; C. W. Magaret, Secretary-Treasurer.

Officers of the Peoria City Medical Society: J. R. Vonachen, Past President; Hugh E. Cooper, President; A. P. Kannapel, First-Vice President; Geo. Parker, Second-Vice President; C. W. Magaret, Secretary-Treasurer.

Reception Committee: Allan Foster, Chairman; Vice-Chairmen: C. U. Collins, Arthur Sprenger, Geo. Parker, Wm. Cooley, Orville Barbour, C. S. Turner and S. H. Easton. Members: Geo. Zellar, O. B. Will, C. H. Brobst, H. G. Eichhorn, J. C. Roberts, O. J. Roskoten, J. P. McMahan, W. T. Marrs, H. M. Sedgwick, E. E. Royce and L. E. Monroe.

Entertainment Committee: W. A. Hinckle, Chairman; Baxter Brown, Vice-Chairman; E. Z. Levitin, A. L. Corcoran, F. G. Hopkins, Bernard Heymann and G. C. Lewis.

Registration and Information: W. B. Eicher, Chairman; Vice-Chairmen: J. F. Sloan and Walter Wyatt. Members: C. G. Blake, H. L. Williams, L. V. Boynton, F. L. Stiers, F. Haas, P. F. James and R. L. Eddington.

Committee on President's Dinner: B. S. Adelsberger, Chairman; H. M. Wilson, Vice-Chairman; J. E. McCorvie, R. L. Green, G. W. Washburn, F. S. Davis and T. S. Egan.

Publicity Committee: Leslie Rutherford, Chairman; R. A. Hanna, Vice-Chairman; Wm. Major, E. E. Barbour and Geo. Michell.

Meeting Place Committees: Surgery: S. M. Miller, Chairman; J. E. Bellas, Vice-Chairman; F. G. Morrill, Wm. Roche and J. H. Bacon.

Medicine: Harry Durkin, Chairman; J. W. Sours, Vice-Chairman; W. W. Cutter, A. A. Knapp, Clarence Fischer, T. C. Coggshall and A. J. Foerter.

Eye, Ear, Nose and Thoat Section: Wright C. Williams, Chairman; C. D. Brobst, Vice-Chairman; C. D. Sneller, C. D. Thomas and E. H. Bradley.

Public Health and Hygiene: E. S. Gillespie, Chairman; Wilbur Weinkauff, Vice-Chairman; R. C. Bradley, E. L. Davis and A. B. Barker.

Radiology: P. B. Goodwin, Chairman; H. B. Magee, Vice-Chairman; P. T. Spurck.

Industrial Surgery: S. H. Easton, Chairman; J. E. Meloy, Vice-Chairman; E. C. Burhans, L. C. Ives, G. L. Cohen and H. L. Yoder.

Transportation Committee: C. V. Ward, Chairman; C. P. Strause, Vice-Chairman; J. R. Bierly, W. H. Holbrock, G. R. Seward, B. H. Trewyn, W. L. Bowen and A. J. Blickenstaff.

Exhibits Committee—Commercial: H. L. Pintler, Chairman; M. T. Easton, Vice-Chairman; Sandor Horwitz, C. E. Scullin, S. A. Smith and D. D. Kirby.

Scientific: M. P. Bohrod, Chairman; F. H. Decker, Vice-Chairman; M. Pollok, F. M. Meixner, A. H. Cohen and J. M. McCuskey.

Ladies Entertainment Committee—From the Society: Margaret B. Meloy, Chairman; Ethel Cooper, Vice-Chairman; Esther H. Stone, Helen C. Coyle and Lucia H. Lucy.

From the Ladies: Mrs. J. R. Vonachen, Chairman; Mrs. W. C. Williams, Vice-Chairman; Mrs. H. E. Cooper, Vice-Chairman; Mrs. Arthur Sprenger, Mrs. W. A. Malcolm, Mrs. C. G. Farnum, Mrs. R. L. Green, Mrs. H. A. Vonachan, Mrs. C. D. Sneller, Mrs. R. A. Hanna, Mrs. C. E. Sibilsky, Mrs. C. U. Collins, Mrs. Allan Foster, Mrs. Geo. Michell, Mrs. J. E. McCorvie, Mrs. C. W. Magaret, Mrs. J. F. Duane, Mrs. F. G. Morrill, Mrs. H. A. Durkin, Mrs. C. S. Turner, Mrs. Clarence Fischer, Mrs. S. M. Miller, Mrs. W. L. Bowen, Miss Mary Knapp, Mrs. George Parker, Mrs. B. S. Adelsberger and Mrs. M. T. Easton.

Alumni and Fraternity Reunion Committee: R. M. Sutton, Chairman; J. A. Eastman, Vice-Chairman; L. A. Burhans, J. T. Weed, W. A. Borin and A. G. Ekonomou.

Golf Committee: J. T. Jenkins, Chairman; J. F. Duane, Vice-Chairman; L. M. Coffey and H. F. Diller.

Ladies Golf Committee: Mrs. W. W. Cutter, Chairman; Mrs. J. A. Bellas, Vice-Chairman and Mrs. H. M. Wilson.

Veterans Service Advisory Committee: E. A. Garrett, Chairman; E. E. Nystrom, Vice-Chair-

man; G. H. Stacy, A. E. Hubbard and T. W. Floyd.

Special Entertainment Committee: W. A. Michael, Chairman; E. P. Burt, Vice-Chairman; R. W. King, F. A. Causey, P. A. Cusack, A. D. Phillips, Elmer Seaburg, F. E. Hammitt, and C. E. Sibilsky.

Hotel Committee: W. A. Malcolm, Chairman; E. C. Kelly, Vice-Chairman; Wm. Blender, A. S. Plummer, F. H. Maurer, J. B. Jennings, W. A. Gott, K. N. Petri, P. R. McGrath, Geo. Borin, P. F. Jones, Thos. R. Plumer, Jos. Sparks and Jerry S. Bell.

DOCTORS DESIRING TO PRESENT PAPERS BEFORE THE 1933 MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY TAKE NOTICE

SECTION ON PUBLIC HEALTH AND HYGIENE

All physicians desiring to prepare and read papers before the section on public health and hygiene of the Illinois State Medical Society to be held in Peoria in May should communicate with the chairman of the section John W. H. Pollard, Evanston, or the secretary, J. Howard Beard, Urbana.

SECTION ON RADIOLOGY

Doctors wishing to present papers before this section kindly communicate with the chairman, P. B. Goodwin, Peoria, or the secretary, Robert A. Arens, 2839 Ellis Ave., Chicago.

SECTION ON MEDICINE

Doctors wishing to present papers before the section on medicine communicate with the chairman, Walter H. Nadler, 8 So. Michigan Blvd., Chicago, or the secretary, R. F. Herndon, Springfield.

SECTION ON SURGERY

Doctors wishing to present papers before the surgical section will please apply to the chairman, Sumner Miller, Peoria, or the secretary, George W. Post, 4010 W. Madison St., Chicago.

SECTION ON EYE, EAR, NOSE & THROAT

Doctors wishing to present papers before the Eye, Ear, Nose & Throat section kindly communicate immediately with the chairman, Frank Novak, Jr., 30 No. Michigan Blvd., Chicago, or the secretary, G. S. Duntley, Macomb.

SECRETARY'S CONFERENCE

Any member wishing to present a paper at the secretary's conference communicate immediately with the President, T. D. Doan, Palmyra, or the secretary, Elizabeth R. Miner, Macomb.

EXHIBITS AT THE ANNUAL MEETING

The Illinois State Medical Society has never before had better facilities available for both commercial and scientific exhibits, than are available for the 1933 Annual Meeting. They will be shown on the lobby floor of the Pere Marquette Hotel, Peoria, but will be separated from the general lobby, so there will be no interference whatever.

All ethical prospective exhibitors who have not received the diagram and application for exhibit space, may receive same by addressing the Secretary of the Society.

We expect to have many interesting scientific exhibits at the meeting, and members of the Society who would like to prepare an interesting scientific exhibit, should also address the Secretary at an early date, telling the nature of the exhibit, and the amount of space desired for same.

Ethical hospitals desiring to prepare interesting exhibits, may also make such application, if they desire to have an exhibit at the meeting. Several interesting hospital exhibits appeared at the 1932 Annual Meeting, and these were very popular with the many visitors present. Complete information concerning exhibits may be procured promptly by writing Dr. Harold M. Camp, Secretary, Monmouth, Illinois, and all requests for space will be submitted to the special Council Advisory Committee, for action.

SIXTY-SECOND ANNUAL MEETING AMERICAN PUBLIC HEALTH ASSOCIATION

The American Public Health Association, foremost sanitary organization in the United States, announces its Sixty-second Annual Meeting, to be held in Indianapolis, Indiana, October 9-12, 1933.

It was in Indianapolis in 1900 at the Twenty-ninth convention of the American Public Health Association that Dr. Walter Reed read a paper entitled "The Etiology of Yellow Fever—A Preliminary Note" indicating that the mosquito serves as the intermediate host for the parasite of yellow fever. History was being made in the Old German House that day, yet it is reported by some of those present that the epochal report was received with only mild interest.

At the Sixty-second Annual Meeting it is planned to honor the only living participant in the famous Yellow Fever Experiment, Dr. John R. Kissinger, at a special memorial session.

The scientific program will discuss every aspect of modern public health practice, from the viewpoint of the health officer, the laboratory worker, the epidemiologist, the child hygienist, the industrial hygienist, the nurse, the vital statistician, the health educator, the food and nutrition expert, the sanitary engineer. Distinguished scientific pronouncements may be expected from the outstanding personalities in the public health profession who will contribute to the program.

The American Public Health Association, 450 Seventh Avenue, New York City, will be glad to send more complete information about its Indianapolis Annual Meeting, to anyone interested.

FOURTH CONGRESS OF THE PAN AMERICAN MEDICAL ASSOCIATION

The fourth congress of the Pan American Medical Association will be held in Dallas, Texas, March 21-25, 1933. There will be a large list of contributors to the scientific program and altogether there will be about two hundred papers from distinguished medical men. The total number of physicians participating in the program will be approximately six hundred.

For detailed information communicate with the president, Dr. John O. McReynolds, Mercantile Bldg., Dallas, Texas.

DELAY IN OPERATING FOR CANCER: LORD MOYNIHAN'S VIEWS

The A.M.A. London letter, December 17, 1932, quotes their regular London correspondent as follows:

Speaking at a hospital meeting in Manchester, Lord Moynihan said that cancer was the only one of the six great killing diseases in this country that showed any increase in the last twenty years. While the average death rate from all causes had gone down 32 per cent the cancer death rate had increased 20 per cent, and in the last seventy years more than fivefold. One death in every seven of persons over 35 years of age was due to cancer, yet cancer in its early stages was completely curable. The Ministry of Health statistics showed that 71.4 per cent of persons who had been treated for grade 1 cancer of the breast were alive and well without any evidence of disease ten years after operation, and if deaths from other causes among these cases were excluded, the survivors ten years after operation were 87.5 per cent. Why were equally good results not always obtainable, and on whom should the blame be laid? The medical profession must take a share of it. Too many physicians were still skeptical about the good results from surgical treatment, and in too many cases delayed advising operation and allowed the patient to drift into the condition which made recurrence after operation inevitable. "Wait and see" was wrong; the advice should be "Go and look," and at once. The public was also to blame for the great increase in the severity of cancer because of incredulity as to the results of operations. Patients who had been cured refused to advertise their cures, because of a false notion that cancer was a sort of moral blemish. The public ought to know that in operating the surgeon had gone as far as it was physically possible for him to go. His operations could not be more extensive; it was hardly possible for them to be safer or to have more successful end-results. The reason why equal success did not attend every case was that nearly everything depended on early treatment. Cancer was always primarily a local disease. If it was accessible when local, it was definitely curable. Certain cases were still inaccessible, but even cancer that could not be removed from the brain was now accessible to radium treatment.

Cancer rarely attacked a healthy organ. Such things as chronic irritation, inflammations, lumps and sores on the tongue and lip were not cancerous to begin with but they led to cancer. Cancer was not hereditary, infectious or contagious. Its worst feature was that at first it was almost always painless. He wished it were painful so that people would be driven to the physician. The accessible cancer was curable on one day but not on the next. Hence the overwhelming importance of early diagnosis.

EDUCATIONAL COMMITTEE
ILLINOIS STATE MEDICAL SOCIETY
Report for February, 1933

RADIO

47—Radio talks given from WGN, WJJD, WAAF, including 24 talks during the Young Mother's Hour given every morning.

Lowell S. Selling—Reducing Children's Nuisance Values.

Bengt Hamilton—Protecting Infants from Tuberculosis.

Philip Aries—My Child Won't Eat.

Noel G. Shaw—Intestinal Infections of Childhood.

Norris J. Heckel—Kidney Stone.

Howard W. Champlin—The Postnatal Period.

Charles J. Drueck—Diet and Disease.

S. J. Harbrecht—Indigestion.

L. T. Curry—What is a Mastoid.

William E. Cary—Botulism.

William H. Rose—Pneumonia.

Frank V. Theis—Varicose Veins.

George L. Perusse—The Feet and Their Ailments.

W. G. Epstein—Acute Abdominal Pain.

M. H. Streicher—Colitis.

W. J. Yonker—The Functions of the Nose.

Henry A. Greenebaum—Grippe.

F. W. Slobe—The Treatment of Common Emergencies.

A. M. Stober—Germs and Disease.

A. I. Edison—Unconsciousness.

Louis N. Katz—The Importance of Heart Disease as a Public Health Problem.

Arkell Meyers Vaughn—Nervousness and Thyroid Disease.

Edmund Jacobson—The Nervous Patient.

SPEAKERS' BUREAU

40—Health programs were arranged for lay groups as follows:

9—Parent Teacher Associations.

18—Women's Clubs.

4—Business and Professional Groups.

1—Men's Club.

7—Public Community meetings.

1—Farmers Institute.

SCIENTIFIC PROGRAMS
for County Medical Societies:

10—Programs scheduled for medical groups:

Will-Grundy—Edward K. Stieglitz—"Classification of Nephritis in Pregnancy."

Will-Grundy—Philip Kreuscher.

Will-Grundy—Harold O. Jones—"Treatment of Pelvic Infections" and film, "Salpingectomy and High Fundic Amputation for Residues of Tubal Disease."

Peoria City—Arno B. Luckhardt—"Recent Advances in Endocrinology."

Scott County, Davenport, Iowa—James J. Callahan—"Fractures."

Iroquois County—Lena K. Sadler.

Rock Island—Julius H. Hess—"Pediatrics."

Livingston County—William H. Holmes—"Etiology and Treatment of Various Types of Secondary Anemia."

Livingston County—James G. Carr—"Etiology and Treatment of Pernicious Anemia."

Monroe County—D. D. Monroe—"Heart Disease."

PRESS SERVICE

727—Releases during the month:

359—Regular press service.

27—Monthly service.

33—Home Bureau Advisors, Material on Colds.

89—Newspapers, re meeting DeWitt County Medical Society.

67—Newspapers, re meeting LaSalle County Medical Society.

87—Newspapers, re meeting Livingston County Medical Society.

31—Newspapers, re meeting Perry County Medical Society.

32—Community papers, re meetings Branches of Chicago Medical Society.

2—Chicago Association of Commerce, re meetings Chicago Medical Society.

12—Educational articles written and approved by the Committee:

Personal Hygiene.
The Backward Child.
Care of the Skin.
Causes of Arthritis.
Colitis.
Food Poisoning.
False Ideas About Syphilis.
The Common Cold in Children.
Predisposing Factors in Diabetes.
Acute Abdominal Pain.
Habit Formation.
A Story with A Moral.

SERVICE TO COUNTY MEDICAL SOCIETIES AND MISCELLANEOUS:

In addition to the newspaper announcements of County Medical Society meetings, the office of the Committee gave the following service:

129—Postal cards sent to physicians inviting them to attend a meeting of Perry County Medical Society.

241—Notices of Livingston County Medical meeting released to physicians.

151—Postal card announcements of Franklin County meeting sent to physicians.

350—Postal card announcements mimeographed for the Women's Auxiliary to the Chicago Medical Society.

Material From the Package Library sent to a doctor of Ottumwa, Iowa.

25—Package Libraries sent to Illinois physicians, subjects:

Fair, Fat and Forty.
White House Conference.
Health and Depression.
Diphtheria.
Mental Hygiene.
Mental Hygiene in Children.
Venereal Diseases.
Health of the School Child.
Growing Old Gracefully.
Health of the Middle Aged Woman.
Tuberculosis.
Children and the Movies.
The Nervous Child.

Help given to Johnson County in outlining plans for a Crippled Childrens' Clinic.

Material on clinics for the handicapped secured for physicians of Livingston County.

Outlines mimeographed for Public Health Chairman of the Illinois Federation of Women's Clubs.

Report of Chicago activities of the Educational Committee prepared for Health Department to submit to Inter-City Chamber of Commerce contest.

Requests for copies of radio talks received from listeners in Wisconsin, Iowa, Michigan, Indiana, Illinois and Kentucky.

Interview with Child Hygiene Chairman of the Illinois Congress of Parents and Teachers concerning cooperation with health program at the Annual Meeting of the Congress.

224 Notices sent to women physicians practicing outside of Chicago. Giving assistance to a committee of women physicians appointed to plan for a special half day session at the Annual Meeting of the State Society.

List of officers of County medical societies furnished Nurses Association.

Suggestions given to nurse promoting public health meeting at Mendota.

Contact made with the Boy Scouts—hope to develop some health work with this organization before summer.

Respectfully submitted,
JEAN MCARTHUR
Secretary.

AUXILIARY NEWS

Livingston County: Mrs. D. W. Tripodi of the Livingston County Sanatorium, entertained the wives of members of the Livingston County Medical Society, at luncheon February 15th. Mrs. E. W. Mueller of Chicago, the State Auxiliary President, honored guest and speaker talked on "The Aims, Purposes and History of the Woman's Auxiliary to Medical Societies of the County, State and Nation." Mrs. Ernest G. Beatty, President, presided over business meeting following musical program. Mrs. A. B. Middleton, Councilor of 2nd District, was another honored guest.

Rock Island County: Since the first of the year meetings of this County Auxiliary have been held in the Hospitals, instead of hotels as formerly, with very gratifying results. Attendance has increased and enthusiasum stimulated. Mrs. W. D. Chapman of Silvis deserves great credit for her efforts in auxiliary work in this County.

At the February meeting this auxiliary voted to send the magazine "HYGEIA" to all nurses training schools in the country; endorsed House Bill 161; Mrs. W. D. Snively of Rock Island gave a summary of the Majority Report of recent investigation made to determine the cost of medical care, and Mrs. W. D. Chapman summarized the Minority Report on the same subject.

It has been the custom for several years to print in pamphlet form Reports of the Annual Meetings of the Woman's Auxiliary to the Illinois State Medical Society. Owing to the necessity of keeping expenses down this year the Auxiliary Board decided not to have these reports printed but to publish them in the space allotted to the Auxiliary in the State Medical Journal. A Special Committee was appointed by the President to take charge of this work:—Mrs. F. P. Hammond, Mrs. J. H. Hutton and Mrs. J. P. Simonds.

It is therefore through the courtesy and consideration of Dr. C. J. Whalen, Editor of the JOURNAL, that it is possible to bring these Annual Reports to all members of the auxiliary throughout the State. These reports will appear in these columns for the next few issues. Valuable and interesting information and outline of the work of last year's Board will be found in these reports. Mrs. E. W. Mueller, President of the State Auxiliary urges each auxiliary member to read these reports carefully and preserve them for future reference.

Reports of the President, Treasurer, and Corresponding Secretary submitted at the Annual Meeting in Springfield last May follow;—

Mrs. F. P. Hammond, Chairman
Press & Publicity Committee.

PRESIDENT'S REPORT

Early in June of 1931 your president wrote to the President of the Illinois Medical Society asking him to name the Advisory Council for 1931. Dr. R. R. Ferguson replied stating there would be no change and the committee of previous year—Dr. J. H. Hutton, Dr. W. D. Chapman, Dr. C. J. Whalen could continue as Advisory Council.

The first Board Meeting was held in Chicago, June 26, 1931, at which time Chairman of Committees were elected, as follows:—

Organization.....Mrs. W. D. Chapman, Silvis
Legislation.....Mrs. Solomon Jones, Danville
Press and Publicity..Mrs. F. P. Hammond, Chicago
Printing.....Mrs. R. K. Packard, Chicago
Social.....Mrs. H. B. Henkel, Springfield
Program.....Mrs. N. C. Iknayan, Charleston
Revisions.....Mrs. Harold Miller, Chicago
Public Relations...Mrs. G. Henry Mundt, Chicago
Registration.....Mrs. Lucius Cole, River Forest
Credentials.....Mrs. A. H. Baugher

The President of the State Medical Society and Secretary of the Educational Committee advised that the Illinois Medical Society had endorsed "Hygeia," and the Board decided to ask the County Auxiliaries to take up promotion of "Hygeia." A special committee was named for Hygeia, with Mrs. G. E. Johnson, Chicago, as Chairman.

The Publicity Chairman was requested to collect clippings on matters of interest to the Auxiliary, to be made into a scrapbook for future reference. This scrap book was part of an exhibit at the National Convention in New Orleans.

A letter was sent to Dr. Andy Hall, Commissioner of Public Health for State of Illinois, assuring him of our support in his work for compulsory vaccination, and offering to assist him in any way possible. Dr. Hall replied stating he appreciated our offer of co-operation.

Plans for study programs were discussed and it was decided to continue with programs suggested by the Educational Committee of the Illinois State Medical Society for the previous year. The following subjects were made basis for programs for this year:

Contagious Disease Control and Emphasis on Smallpox.

Legislation—Medical Practice Act, Bills, etc.

Survey of Magazines with regard to their presentation of Medical Practices, costs, etc.

A Thorough Study of the Magazine "Hygeia."

List of Books written by Doctors or about Doctors with review of several.

Some Economic Aspects of the Practice of Medicine.

Child Welfare and the Examination of School Children.

County Presidents were invited to attend the second Board Meeting held in Chicago November 17th. Tour planned to inspect the A.M.A. headquarters and publishing plant in Chicago, following meeting.

Two other Board Meetings were held in Chicago, January 26th and March 15. Average attendance at Board meeting was fifteen.

Delegates and Alternates to the National Convention in New Orleans were elected at the March 15th Board Meeting.

At the request of the President-Elect, a special committee on Finance was named. Chairman, Mrs. E. W. Mueller, Mrs. A. H. Brumback, Mrs. R. K. Packard, Mrs. S. E. Allen and Mrs. Lucius Cole. This was an addition to our Committees, the Finance Committee being one recommended by the National Auxiliary.

In April your president appointed a special com-

mittee to study the question of some philanthropic project, reporting their recommendations at the Annual Convention. Members of this committee—Mrs. J. H. Hutton, Chairman; Mrs. E. W. Mueller and Mrs. R. K. Packard.

Having very much at heart the line of study to be followed this year your president worked with Mrs. N. C. Iknayan, Program Chairman, in preparing the programs, and the expense of this work was included in my accounts.

In addition your president sent out 790 pieces of mail, including copies of State and National constitutions, program materials and leaflets.

A letter was sent to each County Auxiliary asking all their members to write letters to all members of Congress protesting against the passage of the Maternity Act Bill.

In April a letter was addressed to County Presidents calling attention to an article in a popular magazine, and the comment on this article which appeared in the April Illinois Medical Journal. Presidents were asked to bring this before their auxiliary members requesting each one to pledge herself to interest three lay friends to write letters of protest to this magazine.

During the year your president visited many auxiliaries throughout the State addressing various groups interested in organizing auxiliaries. Two important groups were from Olney and Lincoln.

Your president attended the National Convention in New Orleans submitting report on the work of the Illinois Auxiliary. The salient points mentioned in this report are:

Illinois has an Advisory Council of 4 appointed by State Medical Society.

All County Auxiliaries have Advisory Councils appointed by County Med. Soc. Illinois has 11 organized counties. Cook County having five branches.

One new county organized this year with 57 members.

Our Councilors are members of Organization Committee.

We use "Direct Method" in organization.

Illinois has all committees of National Auxiliary—Archives and Finance Committees being added this year.

State Medical Society through its Educational Committee suggests line of study to the Auxiliary.

Board members 24. Four Board Meetings during this year. Average attendance 14.

I express grateful appreciation to Dr. Hutton of our Advisory Council whose help and encouragement made some of our work possible. Our thanks are also expressed to Miss J. McArthur for her material help with typing and mimeographing programs.

I wish at this time to thank all the members of the Board who gave such cheerful and wholehearted cooperation, all County Presidents and their officers who responded promptly and carefully to requests for information and the officers and chairmen of the Sangamon County Auxiliary who took charge of the arrangements, which have made this Convention such an outstanding success.

MRS. T. O. FREEMAN.

TREASURER'S REPORT

Cash, Receipts and Disbursements
May 1, 1931 to May 1, 1932

Cash balance carried forward 1930-1931	$532.36	
Cash received from dues	540.00	
		$1,072.36
Disbursements		572.79
Balance on deposit First National Bank of Chicago, Ill.		$ 499.57

Accounts audited and found true and correct by Ella B. Burlingame, Public Accountant, Chicago, Ill., May 1, 1932.

MRS. A. H. BRUMBACK.

N. B. Space does not permit itemized report. Detailed figures can be secured upon request.

CORRESPONDING SECRETARY'S REPORT

As your corresponding secretary I wish to submit the following report.

When asked to serve I felt that it would be a pleasant task in spite of the many duties incident to the office.

The Woman's Auxiliary to the Illinois State Medical Society is no longer an experiment, but a proven factor for good. It was first organized in Illinois in 1927 with only a few interested women. It has made a healthy growth in a short time.

Up to date we have eleven active organized counties, with 555 paid members.

Wills Grundy County	25 members
St. Claire County	57 members
McLean County	13 members
Randolph County	15 members
Cook County	298 members
Vermilion County	52 members
Kane County	21 members
Rock Island County	18 members
Douglas County	10 members
Coles Cumberland County	12 members
Sangamon County	35 members

At the June meeting of the Board it was decided to request the County Auxiliary Presidents to read and discuss the magazine Hygeia, and to place it in every physician's office, library, school and home. In accordance with this request many copies were secured and sent to all Presidents of County Auxiliaries.

Copies of the minutes, and report of the annual meeting of the Woman's Auxiliary to the American Medical Association, at Philadelphia in June were received and mailed to all Board members and County Presidents.

Notices of Board meetings were mailed to all Board members for June, November, January and March.

On February 19, 1932 a communication was sent to our Representative Charles Adkins, Washington, D. C. asking him to use his influence in defeating the Shepard Towner Bill.

On March 25, 1932 in compliance with the action of the Board 38 letters were mailed to all members of the Board, and County Presidents requesting them to write an outline plan of procedure of their auxiliary work during this club year, which met with gratifying results.

I want to thank all of those with whom it has been my privilege to come in contact for their courteous letters, friendly greetings and never failing cooperation during my year's work. I appreciate the privilege of serving.

MRS. E. C. ALLEN.

Correspondence

DR. VAN DERSLICE—A TRIBUTE

Oak Park, Ill., January 10, 1933

To the Editor:

James Warren Van Derslice was a man loved by his close associates. He was a man, through and through. And during an acquaintanceship of over thirty years I never once found him lacking in the fundamentals of high manliness —a great record that for anyone.

Organized medicine, about twenty-five years ago, suffered a rift within itself. One faction was called "highbrow"; the other "lowbrow." And because of the partisanship he showed at that time Dr. Van Derslice was ever after called a "lowbrow."

For the younger generation present I should explain that in the days when this rift occurred organized medicine was not the fine and democratic body that it is today. Rather was it a cabal—a great society ruled by the iron hand of the select few who stood omnipotent, who dictated policies, standards and pursuits. You were ostracized if you deviated from the rules and regulations laid down by this group of autocrats.

From this mighty Mussolini method there developed the "lowbrow" group with "Van" one of its first agitators. The "lowbrows" had their beginnings in the Chicago Medical Society, and later invaded the national organization. Besides Dr. Van Derslice at the outset, and Doctors Nagel, Fowler, Ferguson and Kraft I might mention plenty of others in this brave handful.

They were all of them beaten and knocked down, time and time again. But they always got up. And finally they stayed up, not to be knocked down again. They routed the highbrows completely. Ever since the lowbrows have been in the saddle, but if it had not been for Dr. Van Derslice and his co-workers would that element have ever made so much as a stirrup to the unending harm of medicine?

Year after year I attended conventions with "Van." What I state of his fighting faculties is intimate knowledge, and not hearsay. Fighting for a principle that he felt was right, I have known Van to sit in a caucus all night long. And those experiences I count among the rarest joys of my life.

When we take inventory of what life has given us or denied, of what we have possessed or of what has passed us by, even more than temporary fame or monetary success the thing that in reminiscence seems to have brought us greatest delight is the contact and the friendships with men like James Warren Van Derslice.

His enduring friendships were counted by the thousands. Among his intimates were men of both national and international repute. There were men like Cotton, Billings, Pusey, Cary and Dean Lewis, Mattas of New Orleans, Simmons of San Francisco, Brewer of New York, Martin of Philadelphia, Crile of Cleveland, Moynihan of Leeds and Lane of London, to whom he was always just "Van." Few have had the rare privilege of enjoying the friendship of such men. It is a fine thing to have done so.

Upon many of our own closeknit group he has made an endearing and enduring and potent impression. Not only my humble self will bear witness to this but many others including Dr. Anna E. Blount and hundreds of women physicians as well as Oscar Hawkinson, Frank Needham, Kerr and Scott.

Even though he differed perhaps from them in policy, idea or method, yet deep in his heart and soul he had the utmost respect for their individual opinions, as I have often heard him admit.

With a keen sense of justice and passion for fair dealing, he was either for you or against you. No one ever knew him to be guilty of a small or dirty trick, even to an arch enemy. Nor was there ever any question as to where Dr. Van Derslice stood. He took defeat as philosophically as he did victory, and held no malice afterwards. But you never caught him straddling a fence, with muscles tensed to jump on the winning side. Not Van! Those who knew him best, loved him most. He was a wonderful chap.

His leadership in the Aux Plaines society must be referred to. Ever since the component society decided to have branches, Dr. Van Derslice had represented us in the council. Most of the time his advice was right. Which is as

much as can be said for any man since none of us is ever 100% perfect. You couldn't expect Van to be the exception. To the young men of the Aux Plaines who are to carry on as we of the old guard drop out from time to time, "Van" has left a priceless heritage. He was for the group first, for himself afterwards.

In the Aux Plaines branch of the Oak Park Physicians club for the past ten years nothing was ever taken up, nor any decisions made, unless "Van" had a finger in the pie. I feel sure that I can say without fear of contradiction that "Van" did a pretty good job. Never was there a member of whom I know anything who was more beloved, or who will be as much missed as James Warren Van Derslice, and this as much as anything else because he possessed the rare quality of dependability. Though we are all touched by "Van's" going yet there is a sunny side to this going while you are yet comparatively young and still in the hey-day of success.

I remember that when I was an undergraduate the venerable Dr. Oscar King in an address to the class remarked "Have an ideal; chart your course, and steer for it. Even if you never reach the goal, you will be all the better men for the trying." That very day I set Dr. Wm. E. Quine as my goal. I have never reached his medical eminence, but I have never ceased trying to emulate in other ways the great and good physician that he was, and I sincerely believe that by his ideals and his integrity that he moulded the character of more medical students than has any other medical man within my knowledge. And Van was like that. I believe that during the last five years Van's leadership of the Aux Plaines society attained a higher pinnacle of success than has ever been reached by any other leader in any other branch of the Chicago Medical Society. I know I speak the sentiments of many physicians when I say that "Van's" life, his works and his part in the medical activities of his colleagues especially in Oak Park has left on our hearts an indelible imprint.

HARRY JOHN STEWART.

He: "There are a thousand reasons why I love you."
She: "My goodness!"
He: "That's one of them."

THE LENS ANTIGEN TREATMENT OF CATARACT

To The Editor: Noting the abstract of an article by Dr. A. E. Davis on The Lens Antigen Treatment of Cataract in the January number of your Journal, it seemed to me that your readers should know how the profession have reacted to Dr. Davis' report. In the first place we all know that many lens opacities remain stationary throughout life. Early senile cataract may remain stationary for many years, and changes of refraction during this time may improve vision considerably.

Ellis (Arch. of Oph. 1928:57 p. 46) reported a series of cases treated by lens antigen compared with the same number of untreated cases and found an equal number in both series which remained stationary. No clearing of opacities was observed in either series. This is what one would expect since there are no theoretical reasons why immunization to lens antigen would cause absorption of only the opaque portions of the lens, leaving the clear lens intact, and Dr. Davis has never claimed to produce absorption of the whole lens.

So far as we can make out, injections of lens antigen simply act as foreign proteins injections, the reaction from which may occasionally be severe, but is incapable of affecting cataract. They affect principally the mental attitude of the suggestible patient and since the course of injections are long and expensive, your correspondent and a number of prominent ophthalmologists with whom he has discussed this subject feel that the method should not be recommended.

SANFORD GIFFORD, M.D.

PARENTAGE OR GENES OR ENVIRONMENT

Kansas City, Mo.

To The Editor: In a Chicago hospital two babies were born just at the same time; both males. They were tagged routinely. Later, it was claimed they had gotten mixed: Thereby adding commercial grist to the day's news, trouble for the hospital, distress for four parents, not to mention embarrassment for the courts and the scientists.

Here was need for a Solomon to untangle the snarl. Why—what difference did it make outside of sentiment? since none could tell the difference!

Science could not tell? It was embarrassing for science!

Then is it all just a gamble—"Heads you win"? Had effort been made by science or the parents to produce a perfect child? "Nine hundred and ninety-nine babies" are just accidental anyway. Were these two boys then just two more babies? If not, what would make one child *right* or better or different? Seed? Whose seed—father's or mother's? Science does not know, and parents cannot know; and, really, parents 999 are not interested until the baby is born—scientifically! *That must* be scientific! —After all desperate effort at prevention.

Suppose parents *were* interested scientifically, sooner, before!—"In the beginning". Interested eugenically in begetting children, instead of accidentally.

Isadora Duncan was reported in the press to have proposed to Bernard Shaw that they mate to produce the brains of a genius in the body of a goddess. To which it is alleged that Shaw replied, "But how can we know? the product might have *my* body and *your brain!*"

Science is baffled, for the time.

Not only is the question of eugenics here involved—though our friends the birthcontrollers do not seem to think the begetting of children in wedlock is ever, or very rarely, more than accidental (What do you think?)—and since we cannot tell whose seed are *right,* whose seed contribute the controlling or dominant influence, nor which seeds bear the dominant hereditary taint of feeble-mindedness, or what have you? And, since Science cannot say what is in the *genes,* or whether the genes or the heredity or the environment causes physical deformity, feeble-mindedness; or, if each individual human being is just unique! Then shall the mother, outside of sentiment, simply take the baby handed her and proceed with the job? Supposed they *are* mixed and that she does not know it? Is there any difference? Many plays and screen pictures show a difference in results! Read Mark Twain's "Puddinhead Wilson". But is there a difference in babies? Experts cannot say. George A. Dorsey asks, in the above mixed babies case, "What did the Chicago experts have to expert on?

The chips! Just the chips. But chips from whose block? Science searches the woodpile.

Solomon says, "Bring the children into court!...Ah!" says he, "this boy has a Hittite nose! Let's see, the father has a nose like mine! The mother's nose is turned up, now, therefore there is, just arrived, a Hittite nose *gene* in the 'woodpile'."

The doctor says the product will be the result of "the embryonic-material nourishment and uterine barrage of modern physiologic warfare". Then too, besides this, who can say in later years what the endocrine hook-up will do for them:—to say "we are the same that our fathers have been" rather than we are what the function or dysfunction of our endocrine glands make us.

The welfare worker says there may be the *genes* of a prize fighter but the dominants of an artist whose environment produces a bent book-keeper, or a radio crooner.

So Solomon wisely adds, "Bring the children back to me when they are home from the University". O mores! O penates!

While the rule of transmission, the laws of certain physical traits (fairly well established) make us, the exceptions, generalities and averages are baffling. And the environmental influence may outweigh and obscure hereditary gifts*! Then shall the mother ask, "Is this my baby?"

Shall we hereafter dream in our philosophies, and eugenicly beget babies, or follow the orthodox natural selection,—or just bring one home? It seems a far cry to the eugenic baby, the elimination of the moron offspring. The sterilization of the criminal unfit seems realized.

HARRY NELSON JENNETT

*Just recently we have been granted by scientists that the general practitioner's contention that there is much in environment is well founded.

MEDICINE VS. SURGERY

To The Editor: Your editorial on the family physician in your issue of September is right along my own line of thought and I am offering a few remarks on the subject as I see it. We older men are dying off pretty rapidly and so cannot step in and fill the breach. The young men are not being educated as family physicians, but rather as specialists, for the specialty is the thing that brings in the coin, you know, and in bigger bunches than does general practice.

Why, I will be hanged if I know, but the specialist is supposed to be a rather superior sort of being and so worthy of greater pay and more homage. The poor cuss who studies medicine these days has to blow in a lot of money before he can earn a cent and because of his rather huge investment he does not see his way to enter general practice, which is such poor pay, you know. We medical men simply eke out sort of an existence at present and all because the dear people have been told that surgery is the "big show" and that drug medication is all taboo, or nearly so.

I agree with all you have written on the subject, but you are not going to get many of your family physicians until some radical changes are made and that in many ways. We must begin teaching the public that surgery is *NOT* the "whole show" and that frequently patients may do better under medical treatment. We must also teach the truth of this to many of our medical men, even some of our older ones who have gone into the specialties and have become of the one track mind type. When we again begin teaching our students something regarding our staple, low priced drugs and bring a lot of them back on our list, then we may look for a return of the family doctor. He cannot come until he knows something about other than the high priced drug specialties, which are offered almost solely because they give a "bigger profit," as the president of one of our leading pharmaceutical concerns said a few years ago. When we again begin learning something of the simples of Galen and other of our forefathers, then will we become fair family physicians.

I happen to be secretary of the staff of our local hospital and so see all the case reports in which death has intervened. I also see the mortality reports and I have not been able to see that treatment is any better or mortality any lower than either were years ago and before we had all this "higher medical education."

GEO. L. SERVOSS, M.D.
Editor & Manager of Medical Insurance.

"Mummie, you're not nearly as pretty as Nurse."

"Don't you think so, dear?'

"No. We've been walking round the park for an hour and not a single soldier has kissed you!"—Humorist.

90 PER CENT OF THE DENTAL PROFESSION ENDORSE THE FIRST MINORITY REPORT OF THE COMMITTEE ON MEDICAL CARE.

Dr. G. Walter Dittmar, president of the American Dental Association, has sent us an illuminating communication. Dr. Dittmar's statement confirms an impression that has been in the mind of the Editor for some time, namely, that the dental profession of America has not been stampeded into approving a system of medical care that will ultimately bring about a system of state medicine or the Dole system that that has been discredited in England and European countries. We quote Dr. Dittmar in full:

Chicago, Jan. 25, 1933

To The Editor:

I have just had an opportunity to read your most excellent editorials in the January issue of your journal, "Happy New Year" and "The Majority Report of the Committee on the Costs of Medical Care" etc., plus the many citations from lay editorials. May I congratulate you and compliment you on your most excellent presentation.

May I add that it is my belief that more than 90% of the dental profession of America endorse the First Minority Report in spite of the position taken by the members of the dental profession acting on the committee.

Personally I'm with you 100%. *More power to you!*

G. WALTER DITTMAR.

VASCULAR DISEASE

N. W. WINKELMAN, Philadelphia, and JOHN L. ECKEL, Buffalo (*Journal A. M. A.*, Dec. 3, 1932), report in detail, six cases and state that no consideration of vascular disease of the spinal cord can be complete without a survey of its blood supply. Lesions of the spinal cord can result from vascular disease, such as arteriosclerosis, thrombosis, rupture or emboli. The lesions may be small and scattered or involve a complete transverse level. The scattered small lesions may resemble multiple sclerosis. The transverse softening may resemble a compression syndrome. Syphilis plays an important rôle in vascular disease. Unusual conditions, such as angioma and carcinoma, must be kept in mind in the diagnosis of lesions of the spinal cord.

The washing of a syringe with alcohol before drawing blood for the Wassermann test, may give a false reaction.

Original Articles

ACUTE SURGICAL ABDOMINAL CONDITIONS IN CHILDREN*

BERNARD PORTIS, M.D., Ph. D., F.A.C.S.
CHICAGO

While children may suffer from the various acute surgical abdominal conditions which occur in adults, it is very important to emphasize that each period in human development seems prone to be afflicted with characteristically individual pathological processes and their clinical manifestations. In the new born and very young infants, developmental abnormalities are frequent and this fact must be considered in interpreting the resultant symptoms.

The diagnosis of acute surgical abdominal lesions in childhood is sometimes very difficult and requires very critical observation and analysis by both the surgeon and pediatrician. There are two features, among others, which add to this indecision. First, the reflex abdominal symptoms which may accompany the acute infectious diseases, and second, intestinal colics associated with gastro-intestinal disturbances. The following diagnostic aids will be considered before reviewing the author's cases.

The history, as ordinarily obtained from the parents, should bring forth several facts. The sequence of symptoms may give some clue to the underlying process and more especially the onset, the type, and location of the pain. Gastro-intestinal disturbances are usually present, but one should remember that starvation acidosis may be produced by and also cause persistent vomiting, and is not necessarily of surgical importance. The past health should receive full consideration, and exposure to or the presence of infectious diseases should be eliminated.

The physical examination, important in all patients, is of extreme importance in children so as to rule out all extra-abdominal lesions, and hence localize the trouble within the abdomen. The surgeon has much to learn from the pediatrician, in the care, dexterity and gentleness, in examining these young patients, and especially in eliciting tender regions and muscular rigidity. Rectal examination should be made, as not infrequently local evidence is present which definitely establishes the diagnosis.

Laboratory and x-ray studies should be utilized when indicated. It may be needless to state that no child should be operated upon without a urine and blood examination. The differential white blood count in infants normally shows a high percentage of lymphocytes, and when altered frequently indicates an inflammatory condition. Ordinarily, there is an accompanying leukocytosis. The urine examination will help exclude cystitis, pyelitis, nephritis and calculi, as the primary lesion. However, red blood cells in the urine are not infrequent with the retro-cecal form of appendicitis. The stool should be examined, especially in conditions simulating intestinal obstruction, as blood is usually present in intussusception. Search should also be made for intestinal parasites and ova. Further, the type of bowel movement may indicate some nutritional disturbance. The x-ray studies may be required in differentiating chest conditions, and also for intestinal obstruction. Likewise, the oral administration of barium is very helpful in the diagnosis of congenital atresias of the intestinal tract, as its rectal administration in intussusception or volvulus.

The material included in this paper represents an analysis of 158 cases operated upon by the author from his private and the children's service at the Michael Reese Hospital. Various authorities have been consulted in some of the less frequent conditions. The diagnosis, differential diagnosis, and therapy of the acute surgical conditions will be considered.

Acute Appendicitis. Acute appendicitis was the most frequent acute surgical lesion and was represented by 145 cases. The children under two years of age presented symptomatology somewhat different from those over two. Many of the younger group were not seen or the disease recognized until peritonitis was well established; again the onset in a few was associated with chills, and one had convulsions. In general, appendicitis in the first two years of life presents a bizarre picture, which renders the early diagnosis difficult. However, abdominal

*Read before Section on Medicine, Illinois State Medical Society, Springfield, May 19, 1932.

cramps associated with vomiting, local rigidity, tenderness, mass formation and leukocytosis, should make one suspect the possibility of appendicitis.

In the children over two years of age, the symptomatology was more like the adult form. There were a few special features which should be considered as the early diagnosis was essential in reducing the present high mortality of appendicitis of childhood. The onset in most of the children was not very sudden, and was ushered in with mild to more severe colicky attacks of abdominal pain. The pain, in the majority of cases, was generalized and did not confine the child to bed; however, it had a tendency to recur with increasing severity with the progression of the pathological process and later localized in the right lower quadrant. The attacks which started during the evening or night seemed, for some unknown reason, to be of a more severe nature.

Some form of gastro-intestinal upset was constant, although vomiting occurred in only 77%, while the others complained of anorexia and nausea. The vomiting was not severe, frequently contained bile and recurred only a few times. Fever was present in all the patients within the first twenty-four (24) hours, but in five there was a rapid rise to 104 within eight (8) hours. In these children the leukocyte count remained low and the appendices were gangrenous at operation. Leukocytosis of 12,000 to 20,000 with a polynucleosis was the rule, but this finding, while important, should not be the determining factor for surgical intervention. Young infants may show a marked lymphocytosis with acute appendicitis. The urine was essentially negative, except a few showed red blood cells, and in these cases operation demonstrated a retrocecal position of the appendices. Marked acetonuria was noted in several patients with severe vomiting, but because of its association with conditions other than appendicitis this finding did not help in the differential diagnosis.

Physical findings were usually quite definite. However, some children with quite advanced appendicitis frequently presented outward appearances of comparative comfort. Localized tenderness was present in the right lower quadrant, but the degree depended somewhat on the proximity of the appendix to the anterior abdominal wall and was least marked in the retrocecal variety. This pointed tenderness was found in several different locations when the rotation of the cecum was not complete. Rebound pain, elicited by suddenly letting up the compressing hand, was found in the cases of peritoneal inflammation or free exudate, and was considered as evidence of a progressing process. Involuntary muscular rigidity was sometimes difficult to ascertain, but when present was diagnostic. Rectal examinations were always performed and were found of aid in the diagnosis of low lying appendices and in the presence of pelvic exudation.

Many patients did not present the above symptomatology and physical findings in their entirety and required a certain period of observation before contemplating operative intervention. The temperature curve, leukocyte counts, and repeated physical examination were made at frequent intervals as an aid in this decision. Catharsis, sedatives, and solid food were interdicted during this period.

Peritonitis. Peritonitis, other than of appendicial origin, was quite rare. There was one group of five cases diagnosed preoperative as hematogenous peritonitis. This term indicated the onset of an inflammatory process of the peritoneal cavity originating from some extra abdominal focus and reaching the abdominal cavity by way of the blood stream. Some pathologists deny this possibility and state that the main intra-abdominal lesions, such as mesenteric adenitis or enteritis with migration of the infectious process have been overlooked. These five children had a recent upper respiratory tract infection before the onset of what appeared to be a severe peritoneal inflammation. One of my cases so diagnosed proved at postmortem to be an ulcerative enteritis, but with no obvious perforation. Three other cases had severe mesenteric lymphadenitis. The fifth case showed no obvious lesion, survived the exploration, so that the etiology remained undetermined. I still believe the hematogenous peritonitis may occur but in all probability

some of the cases so diagnosed are in reality caused by direct extension.

Tuberculous peritonitis usually arises from some focus elsewhere, especially the glands, lungs, bones, and genito-urinary tract. The mode of infection may be hematogenous, lymphogenous, or by direct contiguity. The acute form may be localized, but the generalized form, with numerous miliary nodules and excessive free exudate, is more frequent in children. This latter type may be ushered in by all symptoms simulating acute appendicitis although the duration of the initial period is usually prolonged and frequently associated with diarrhea. Two cases upon whom I operated were of this nature, and the true character was not determined until operation, except the presence of fluid suggested tuberculosis as its possible etiology, although no obvious foci of tuberculosis were demonstrable.

Pneumococcus peritonitis is a comparatively rare condition and no case was encountered in this series. It may appear in either of two forms, namely, the primary which arises chiefly in the female from a pneumococcal infection of the genital tract, and the secondary form, which is usually preceded by pulmonary infection. The typical case starts with suprapubic pain, difficulty in micturition and diarrhea. The temperature rises suddenly and may be associated with chills. The infectious process in many cases spreads giving rise to a generalized peritonitis and septicemia with fatal termination. In the minority of cases, however, the exudate usually localizes forming abscesses which if not drained may rupture to the surface, especially around the umbilicus. The physical findings are essentially those of a spreading peritonitis with more marked localization in the lower abdomen. Herpes labialis is frequently present.

Intestinal Obstruction. Intestinal obstruction or ileus may be either mechanical or paralytic. The paralytic form was found to occur reflexly from some extraperitoneal disease, after operations, and associated with peritonitis. The findings of abdominal distention, vomiting, and absence of peristaltic activity associated with the above conditions was diagnostic.

Mechanical or obstructive ileus in children usually arises as the result of congenital atresias of the gastro-intestinal tract, other malformations, intussusception, and abnormal hernial complications.

Two cases of congenital atresia were operated upon. The early onset of repeated vomiting after the ingestion of food aroused the suspicion of a congenital obstruction of the duodenum, but the final diagnosis depended upon the x-ray examination demonstrating its presence. Both of these children lost considerable weight and one was markedly premature. Gastro-enterostomies were performed, but neither survived more than a few days.

Intussusception is the commonest form of intestinal obstruction. Six cases were seen but only four were treated by surgical intervention. The usual manifestation of severe colicky pain associated with vomiting, mucohemorrhagic stools and a demonstrable tumefaction in the lower right quadrant were present and rendered the diagnosis quite simple. Two of the operative cases were of the ileocolic variety and the other two were ileocecal associated with Merkel's diverticulum. Five of the children were under two years of age while the sixth was 10 years old. This last case demands special attention as intussusception at this age is an extreme rarity. He had had two distinct attacks of intestinal obstruction during early infancy and diagnosed by the pediatrician as due to an intussusception and were relieved by barium enemata. Subsequently he suffered from repeated attacks of minor abdominal colics until this last attack which started with very severe abdominal pain and collapse. Vomiting, mucohemorrhagic stools and large abdominal tumor soon occurred. The diagnosis of intussusception was made and immediate operation decided upon. On opening the abdomen a very large dark blue black tumefaction was encountered, and after prolonged manipulation the intussusception was reduced. It proved to have started from a Meckel's diverticulum which had first invaginated itself and this in turn intussuscepted into the ileum which in turn passed into the distal ileum and into the cecum so that the head of the intussusceptions reached the hepatic flexure of the colon. The viabil-

ity of the intestine returned after reduction and the child made a complete recovery. The Meckel's diverticulum was resected.

TREATMENT

The treatment of the above conditions was usually surgical but the time and choice of operation required considerable deliberation. The surgeon's and pediatrician's judgment was frequently taxed to the extreme to make a correct diagnosis. Further, the usual progression of the pathological entity was kept *in mind in deciding the optimum time for intervention.* The various nonsurgical lesions *which simulated acute surgical abdominal conditions* were differentiated, and I wish again to emphasize the frequency of this interrelationship. If, after careful examination and observation, there is still a reasonable doubt, an exploratory operation is justified.

I believe in the dictum that once the *diagnosis of acute appendicitis is made, operation should be performed without undue* delay, and the appendix should be removed *if it is humanly possible without subjecting* the patient to too great a risk. There were several exceptions however to this rule. Children seen a few days after the attack had presumably started and, showing all outward signs of a subsiding process, were watched carefully *and operated on later in the interval* when this was possible. The other group *also seen late and with an overwhelming* peritonitis were treated according to the Oehsner method, with the removal of the appendix or drainage of the abscesses at a later time.

Paralytic ileus of the various origins was treated according to the following plan. *Fluids were supplied during the paralytic* stage by means of hypodermoclysis only. *About 1500 c.c. of either saline or Ringer's* solution with or without 5% glucose solution each 24 hours was usually found adequate. The addition of glucose may retard absorption. Gastric lavage was performed in the presence of vomiting and repeated if necessary. The various peristaltic stimulants and enemata were avoided until the intestine showed evidence of recovery of its muscular tone, which required up to 4 days. This method has been found very satisfactory and superior to other forms of treatment in reducing the mortality in this condition.

The treatment of pneumococcus peritonitis, *even when diagnosed, is still in dispute. Many* surgeons advise early incision and drainage as this tends to prevent spreading peritonitis and septicemia. Others consider surgery contraindicated until localized abscess formation. However, the best reported results were obtained by early exploration and drainage. *The concentrated anti-pneumococcus serum* has been used with some success.

The therapy of tuberculous peritonitis, likewise, offers many conflicting views. The form associated with serous exudation responds in about 60% to simple exploration, plus the removal of a primary focus if in *evidence and localized. Numerous therapeutic* measures such as heliotherapy, intraperitoneal *injection of air and nitrogen and* x-ray exposure have been advised with some beneficial results. The two cases operated upon by the author were definitely benefited by simple laparotomy.

Intussusception was diagnosed in six children and four were subjected to operation. *Pediatricians have repeatedly demonstrated the fact that this condition may be treated without surgery in some cases. The* various forms of enemata and the bloodless method of Monrad of Copenhagen have been utilized with good results, when the children were seen very early. This form of treatment was limited to the simple varieties, but carries with it the danger of incomplete reduction of the intussusception. Further, it may *prolong the period of observation beyond the time limit for even surgical intervention.* The two unoperated children were given a *barium enema by the pediatrician with* complete reduction and restoration of function. The four operated upon were quite readily relieved, and without any period of uncertainty which is always present in non-operative cases. Early diagnosis and decision as to the necessity for operation are paramount *to a low mortality.*

104 South Michigan Ave.

DISCUSSION

Dr. H. C. Blankmeyer, Springfield: Mr. Chairman, this fascinating presentation of Dr. Portis is certainly an eye-opener to me. He reported this series

of operative cases practically 92 per cent. appendicitis. What a delightful thing it would be if we could look into that little belly to see what the appendix was like. I think that this is a higher percentage than I have ever encountered in the literature. If it is true, it certainly makes me think that I am pretty far behind the head of the procession in overlooking these little cases.

There are two things that rather startle me when I find a lower quadrant pain in the right side. I find that occasionally, of course, in right lobar pneumonia, and I still wonder if that is not an extension of that process. You find that very commonly in your acidosis cases, and especially those that assume that particular acrodynic posture; and I have seen one or two normal, cute little appendices in a bottle on a mantel that were purely limited cases of acidosis. I wonder if, at the time the appendix was out, why in three weeks more they had a recurring appendicitis. I just do not know where I am when it comes to appendicitis.

It strikes me that this is a delightful bit of keen judgment on the part of Dr. Portis in finding that many appendices, 145 out of 158 operated cases.

I do not believe that he touched upon his idea of etiology. I would like to know what to look for in the history other than symptoms.

Dr. Ciney Rich, Decatur: Mr. Chairman, I enjoyed this paper very much indeed, and I feel that the Doctor is to be congratulated on his report.

I wish to emphasize one thing. Several years ago I heard Dr. John B. Dever say that the time to operate on acute appendicitis is when the diagnosis is made. Some years later I heard him modify that statement; and I feel, as Dr. Portis mentioned in his paper, that where we have these cases of acute appendicitis with an acute, disseminating peritonitis, where we have a distended abdomen that is becoming rigid, where we have a dry skin, and urine which contains casts and albumin—that type of case is much better treated by the Ochsner method until their resistance has come back or until they have developed a localized abscess, in which event the abscess should be drained and usually nothing else attempted.

I would like to mention a case that I had less than two months ago in a youngster 21 months old that had been ill, when I saw the youngster, 7 days, with what was apparently an acute gastroenteritis, with marked diarrhea from the beginning. This youngster at operation had an acute, gangrenous, ruptured appendix with an adherent loop of the ileum, producing an acute and total intestinal obstruction. The youngster had a very stormy convalescence for the first three days and then went ahead to an uneventful recovery.

Dr. Orville Barbour, Peoria: Dr. Portis stresses the cooperatoin with the pediatrician which I as a pediatrician fully appreciate and do not always get from surgeons. I think that one of the most difficult diagnostic problems we have, is to differentiate between appendicitis and other abdominal conditions. Dr. Portis spoke especially of the difficulty in babies under 2 years of age. I have found it so.

One thing that has helped me and probably has you, Dr. Portis, but you did not bring it out in your paper, is that usually when a baby shows signs and symptoms of being extremely ill, and presents signs pointing to the abdomen, especially to the right lower quadrant, if he has an appendicitis he has a comparatively low temperature. I have watched the temperature in those babies very closely. If I suspect appendicitis and find a high temperature, usually the symptoms apparently have proven to be due to a secondary lymphadenitis. When I have an extremely ill patient, with signs pointing toward appendicitis, and it has a low temperature, I nearly always urge the surgeon to operate.

A clinical aspect which causes a good deal of difficulty is that of differentiating between what Dr. Bohrod spoke of, acute lymphoid adenitis around the ileocecal region, and acute appendicitis. It seems to me that in my experience if the case is one of lymphadenitis I usually obtain a history of a previous upper respiratory infection. If I think it is lymphadenitis I try the ice-bag for a while. The ice-bag usually relieves a lymphadenitis where it frequently will not an appendicitis.

Dr. Sumner M. Miller, Peoria: I have noticed one striking thing and that is that one would have expected a larger number of congenital pyloric stenoses in a group of surgical diseases of childhood.

Dr. Bernard Portis, Chicago (closing discussion): I did not include congenital pyloric stenosis as this rarely gives rise to acute surgical abdominal disease, and further many yield to medical management.

I devoted considerable attention to the pathological studies of appendiceal disease when I was pathologist at the Michael Reese Hospital, and in answer to Dr. Bohrod I might state that all tissues removed at operation are sent over to our laboratory for microscopical examination. I personally have examined all the organs removed from the cases included in this report. I quite agree with the doctor in that it is frequently difficult to correlate the clinical and microscopical findings. However, the earliest findings are hyperplasia of the lymph follicles and then a slight raising of the lining epithelium and invasion of polymorphonuclear leucocytes. Still later in the advancing cases, the picture is that of increasing suppurative and gangrenous changes. We have used the oxidase stain as the method of demonstrating the granulcocytes in the final diagnosis of the acute catarrhal appendicitis. I believe that most of the actual cases of acute appendicitis will show evidence of early inflammation, if the features are looked for.

I am sorry I cannot add anything to the etiology of acute appendicitis, as asked by Dr. Blankmeyer. I do not believe that the percentage of cases of acute appendicitis is unusually large when one considers that practically the same percentage is found in any large series of cases. All of the charity and most of my private cases included in this report have been seen by the resident or attending pediatrician,

and we are very fortunate at the Michael Reese Hospital to have the opportunity for close cooperation. This combined study was of especial importance in the obscure cases.

According to Dr. Rich's statement I fully agree with him that each case must be evaluated. The Ochsner method of treatment has proved to be a very satisfactory and sane method of procedure.

A case of progressing, advancing peritonitis, with an overwhelming infection of the body, should not be operated on at that time, but should be treated according to Ochsner's method of fluid administered under the skin or intravenously, no enemas, and the stomach lavaged. If they are going to get well, it will be by this method and no other that I know of.

The recognition of appendicitis in young infants is very confusing. I do not think that the temperature reaction is very definite, so that I cannot draw any conclusions from it. I will illustrate with one case. About four years ago I was called in by a pediatrician to see a young baby 10 months old. It had a peculiar abdominal condition, some vomiting, and mild distention. When I came in to see this child the temperature was slightly elevated; it was sound asleep, and perfectly comfortable. There was one finding which I demonstrated that made me consider operation. This child had rebound pain in the right lower quadrant when the hand was suddenly let up from compression. I have emphasized that to our intern group every time I have had the opportunity: "Look for rebound pain." It is an individual symptom or individual physical finding, and is very important. This little infant, after awakening, had rebound pain when I let up my hand, and I decided to operate. At operation there was a small perforation near the tip of the appendix and a beginning peritonitis.

Just recall the clinical picture of this little 10 month infant: perfectly calm, sound asleep, and yet had this overwhelming process well under way. We removed the appendix and the child made an uneventful convalescence. You all, undoubtedly, have seen little infants such as that.

In summary, I wish to thank all those who participated in this discussion, and I want to say that all these cases were very carefully observed from a pediatric standpoint and a surgical standpoint.

GOOD PROSPECTS

"What's tickling Hickey so?"

"A bootlegger offered him a commission for new customers, so Hickey, by way of a joke, gave him the membership roster of the Civic Dry Enforcement League."

"Well?"

"Today Hickey got a commission check for $550."—Penn. Register.

There is a new cough medicine on the market called Eatalax. Two hours after taking three teaspoonfuls you don't dare cough.—The Green Gander.

CARCINOMA OF THE TONGUE WITH SPECIAL REFERENCE TO TREATMENT BY IRRADIATION*

JOSEPH C. BECK, M.D., and
M. REESE GUTTMAN, M.D.
CHICAGO

Carcinoma of the tongue is a sufficiently common occurrence to warrant serious consideration by the practicing laryngologist. Indeed it is to him that the general practitioner so frequently turns for aid when confronted by such a grave condition.

To those that are at all familiar with the literature, just another contribution on malignant disease of the tongue, would add nothing to what has been established relative to our knowledge concerning this dire affliction. However, there have been many advances especially within the realm of histopathology and irradiation therapy that justify this contribution in order that this knowledge may have a more general distribution. In fact, these advances have had a profound influence upon our therapeutic approach in malignant disease of the tongue.

That all malignant tumors of the tongue do not pursue a similar course is a matter of common experience. Just why one lingual neoplasm will grow rapidly and cause the death of the patient within a period of a few months and another grossly similar mass progress but slowly and only cause death after an interval of a number of years, has caused a great deal of speculation and interest in the pathologist, as well as the clinician. It is only since the work of Broders and McCarty that the study of epithelial neoplasms in attempting to relate their histologic picture to the clinical course that the disease pursues, has been popularized. The classification in four groups as proposed by them has not received universal acceptance. As is well known, practically every histologic type of epidermoid carcinoma may be found affecting the tongue from the adult fully differentiated squamous growth to the more or less totally anaplastic transitional cell or lymphoepithelial variety. For practical purposes a division of lingual carcinomata into three groups has been acceptable, especially to the

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*Read before Section on Eye, Ear, Nose and Throat, Illinois State Medical Society, Springfield, May 17, 1932.

clinician. In the first group are found those neoplasms of comparatively slow growth that exhibit but little tendency towards metastasis to the cervical lymph nodes and the parenchymatous organs. Histologically these neoplasms show a picture of a more or less fully differentiated adult type of a neoplasm, the cell exhibiting elongated pavement like structure with relatively rare mitotic figures and a pronounced tendency towards the exhibition of keritinization, pearl formation and intercellular bridges. At the other extreme, and included in the so-called group three, are those neoplasms that exhibit a high degree of malignancy. In spite of their frequent small size they have a rapid rate of growth with a marked tendency towards early wide and diffuse metastasis and causing death within a relatively short period of time. Microscopically these lesions evidence a picture of an embryonal, anaplastic, undifferentiated growth. The neoplasm is highly cellular with the individual cells exhibiting marked variation in size, shape and staining qualities. Mitotic figures are abundant and adult features such as keratinization, pearl formation and intercellular bridges are conspicuous by their absence.

Between these two extremes is found an intermediate group, the so-called group two. These have features that lie between the adult characteristics of group one and the anaplastic embryonal features of group three.

Clinical experience has enabled us to draw several important conclusions regarding those neoplasms that may be found either in group one or three. Thus, it has been found that trauma has but a minimal effect in accelerating growth or producing metastasis, in the lesions that fall into group one, and therefore, surgical intervention in the early localized stages of the disease, providing the anatomical position is favorable is attended by excellent results. The effect of irradiation is less pronounced and therefore, these growths are more or less relatively radio-resistant. On this account irradiation therapy is frequently disappointing in these types of lingual malignancies. In the neoplasms in group three any trauma, no matter how insignificant, may accelerate growth or metastasis. Not infrequently local glandular, as well as visceral metastasis may have occurred before the growth has reached sufficient size to be attended by clinical symptoms sufficient in intensity to cause the patient to seek medical advice. Surgery has been found to be attended by but poor results and is therefore contra-indicated in these types of neoplasms. In many of these growths relatively small amounts of irradiation can produce dramatically rapid disappearance of the growth and these tumors are therefore, radio-sensitive. It follows that in consequence of the poor results with surgery and the spectacular response to irradiation that these neoplasms are best treated by radium or deep x-ray therapy. No such definite statements can be made relative to the neoplasms that are placed in the category of group two. Some may show characteristics that are predominantly of group one and are to be treated along the lines suggested for those neoplasms and others may, of course, show characteristics of group three and should be treated accordingly.

In group three there have been isolated two types of neoplasms that are accompanied by a highly characteristic unique histological picture and are associated with extreme radio-sensitivity—the so-called transitional cell carcinoma and lympho-epithelioma.

The transitional cell carcinoma has a histological structure of strands or sheets of round or polygonal cells with a markedly hyperchromatic nucleus. The lympho-epithelioma, histologically, is composed of a large number of relatively large cells, containing a very small pale staining rim of cytoplasm. The cell outlines are frequently difficult to distinguish and may give one the impression of a syncytial mass. The nuclei are large, occupying practically the entire cell and exhibiting a prominent nucleolus. Throughout the section one finds areas of infiltrations with lymphocytes that may at times be so dense as to practically obscure the underlying cell structures.

These neoplasms have all the characteristics of highly anaplastic malignant growths and are exceptionally radio-sensitive.

These histological studies of the relative degree of cellular differentiation or of the potential malignancies of the growth have been most enlightening from a practical point of view in explaining the success or lack of success with surgery or irradiation in the various types of neoplasms so treated. These histologic criteria

are important, not only in determining whether the tumor is best treated by surgery or irradiation but also is a factor in calculating the intensity of the irradiation dosage. It is to be seen therefore, that the treatment of lingual carcinomata cannot be placed into a routine standard clinical procedure, but becomes a special problem in each individual case. We have elaborated a dictum that the biopsy determines the details of treatment. These studies have also shown that the lack of success with surgery in attempting to treat the carcinomata on the base of the tongue was due more often to the fact that we were dealing with a highly undifferentiated anaplastic growth, rather than the technical surgical difficulties encountered and conversely the highly spectacular and dramatic regressions of apparently hopeless growths in this same region following irradiation are to be explained in the same manner.

Recent advances in surgical technique in the treatment of malignancies of the tongue are not many. The use of surgical endothermy has replaced the cold knife. However, we employ it only in small, more or less localized lesions of the anterior portion of the tongue, that histologically fall into group one. As a precautionary measure the lingual arteries are ligated previous to the attack with the electrothermic methods, otherwise not infrequently an alarming secondary hemorrhage may occur.

Irradiation is one of the most important weapons at our command in the treatment of malignancy of the tongue. However, it must be employed, when indicated, in adequate dosage together with proper screening as well as other technical factors that time will not permit of discussion. Irradiation delivered by direct surface application of only small amounts of radium is mentioned but to be condemned. Interstitial irradiation is highly successful. The best results are obtained by using small amounts of radium or radon, using a screen of at least 0.5 mm. of platinum or its equivalent over a relatively long period of time. If radon is employed we advocate the use of the removable platinum radon containers in order that some of the disagreeable sequellae subsequent to leaving the seeds permanently in the tissues, may be obviated.

The method of implanting the needles or radon implants vary with the size, location and depth of the lesion. Local anesthesia is effected by conductive injection of the lingual nerve and in addition the mucosa over the area may be brushed with a solution of cocaine. In small lesions the implants are placed in palisade formation about the circumference of the lesion at a small distance from its periphery without entering the tumor proper. Larger lesions require the insertion of the needles into the actual tumor itself in addition to the surrounding palisade. Growths in the posterior portion of the tongue may be irradiated by inserting the needles or radon implants into it via the anterior inferior aspect of the tongue or through the skin just above the hyoid bone. A gloved finger placed into the mouth on the back of the tongue acts as a guide to the proper placement of the implant.

One of the most important advances in the treatment of carcinoma of the tongue by irradiation is the use of large amounts of radium at a distance or the so-called telio radium therapy. It consists in the use of one to four grams of radium at a distance of six, ten or fifteen cm. This technical advance bids fair to produce brilliant results especially in the more radio-sensitive types of growths. Unfortunately the tremendous cost of such a large amount of radium, in the neighborhood of $250,000.00, will prevent its use except in the larger clinical centers that have adequate financial endowment. We are indeed fortunate to have at our disposal at the Michael Reese Hospital a four gram pack or bomb which permits us to utilize this most efficient type of irradiation therapy. Lacking such technical means the use of highly filtered deep x-ray therapy may be a more or less acceptable substitute, as it is far better to employ a good dose of x-ray therapy than a poor dose of radium.

The treatment of the neck, in association with carcinoma of the tongue, is just as important as the treatment of the primary growth itself. It must be recognized that microscopic metastatis may be present in the glands of the neck without any palpable evidence. It must also be understood that not all palpable glandular enlargements are necessarily malignant as a fair percentage are infectious. The therapy advocated for the neck is dependent upon the nature of the primary growth, the presence or absence of palpable metastasis, as well as their

extent. If no glandular involvement can be made out grossly the prognosis is, of course, materially improved, especially if the primary growth is one of the adult fully differentiated types of carcinoma. In these cases the neck is subjected to intensive irradiation in any event, preferably by the use of a four gram pack at a distance. If a radium pack or bomb is not available, one may utilize highly filtered deep x-ray or one may systematically needle the neck by the subcutaneous placement of radium throughout the cervical area. Needles containing one and three tenths or two mg. of radium, with a 0.5 mm. platinum screen are employed. After proper preparation under the skin and under gas anesthesia the needles may be inserted along the anterior and posterior borders of the sternomastoid from the clavicle to the base of the skull, below the mandible throughout the submaxillary triangle and just above the hyoid bone. This procedure is carried out on both sides of the neck at the same time. Care must be taken in the proper technical placement of the needles so as to not endanger the mandible, the hyoid bone, the thyroid cartilage and the important blood vessels of the neck. The needles are permitted to remain insitu for a period of from five to seven days. The resultant radio dermatitis so well described by Regaud is an index of efficient irradiation. This method of subcutaneous interstitial irradiation is preferable to the Columbia paste collars that are also advocated.

The presence of palpable nodes modifies the treatment indicated. While conceding that a good percentage of the palpable nodes may not be malignant in practice all glandular enlargements are treated as if they are proven carcinomas.

If the primary lesion in the tongue is an adult type of tumor, a radical resection of the gland bearing tissues is performed. It is frequently necessary to resect the jugular vein with the involved chain of gland and we have, on several occasions, even resected the common carotid artery, on the affected side. Obviously but one internal jugular vein may be removed. A few days following the surgery upon the neck irradiation therapy preferably with the four gram bomb is instituted; lacking the necessary amount of radium one may insert the needles as described above at the time of the neck operation, or if deemed advisable at a later time. However, if the primary growth is of the anaplastic transitional or lympho-epithelioma type no surgery is performed and irradiation as described above, is depended upon.

CONCLUSIONS

1. The problem of therapy of carcinoma of the tongue has undergone radical changes within the past seven years.

2. Malignant epithelial growths of the tongue vary in their histologic structure, biological course and response to irradiation.

3. Adult fully differentiated carcinomata grow slowly, metastasize late and are relatively radio-resistant. They are, therefore, better treated by endothermic excision, if small and localized to the anterior portion of the tongue.

4. Anaplastic, embryonic undifferentiated growths are highly malignant, metastasize early and wide, and are highly radio-sensitive, especially the transitional cell and lympho-epithelial variety. They are best treated by irradiation preferably with the four gram bomb and in association with interstitial radium or radon, if necessary.

5. The gland bearing area of the neck must receive appropriate attention in every case.

6. Where no palpable glands are present in the neck prophylactic irradiation is necessary, preferably with a four gram pack.

7. Palpable glands, secondary to a fully differentiated primary growth in the tongue are best treated by a radical gland resection in conjunction with irradiation.

8. Palpable glands, secondary to an anaplastic undifferentiated primary growth are treated by irradiation alone and surgery upon the neck is contraindicated.

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DISCUSSION

Dr. Samuel Pearlman, Chicago: I am glad to have the opportunity of discussing Drs. Beck and Guttman's paper. Cancer of the tongue is not a very common disease, and most of us in our private practice see but few cases in a life time. I know that Drs. Beck and Guttman have seen a great many cases but I must admit that I do not envy them their distinction. Most patients end the same way; they die of the disease. Years ago, Butlin wrote a classic treatise on diseases of the tongue. Compared with our own day his results were very good. The treatment then was all surgical. The third edition of this book was published a short time ago and edited by two of his former associates, Spencer and Cade. What was astonishing in the new edition was the relegation

of the surgical attack on cancer of the tongue to the background and its replacement in very large part by radium. The surgeon, it seems, has tried surgical treatment for cancer of the tongue and is more than willing to give it up for something different. Cancer of the larynx Butlin once said is "a dire disease"; cancer of the tongue, too, we will all agree is a dire disease. The use of radium in its treatment appears to be the one bright spot of the present time. In many instances the lesion disappears for years at a time. Even in treatment of metastatic glands in the neck, radium is replacing block dissection or is being used not only externally but deep in the neck after surgical exposure.

Dr. M. Reese Guttman, Chicago (closing): Unfortunately my associate, Dr. Beck, is not able to be present. He had fully intended in the discussion to bring out the fact that not one single case of a large series of malignancies of the posterior portion of the tongue that he had seen in thirty years of practice had remained well, prior to 1926. Since that time there have been several technical advances in the use of radium that has permitted a more hopeful outlook. A review of the literature emanating from the large radium centers throughout the world will show that something between thirty and forty per cent. of the growths in this region may be cured or at least held in abeyance for a period of over five years. Surgery, unfortunately, is followed by poor results and therefore, irradiation is the treatment of choice of cancer of the posterior third of the tongue. Surgical resection is only indicated when the growth is small and limited to the anterior portion of the tongue. The best results are to be obtained in the use of telio radium therapy or the so-called bomb. There have been recent advances in deep x-ray therapy with the development of machines that are capable of producing one million or more volts. In Germany deep x-ray therapy machines of three and one-half million volts are said to have been engineered. The ray emitted from an x-ray tube subjected to three and one-half million volts closely approaches the gamma ray produced by the disintegration of radium. It is possible that in the future this type of deep x-ray therapy, which is purely experimental at the present, may be an important factor in the treatment of carcinoma.

Insurance man (putting questions to cowboy): "Ever had any accidents?"

"No," was the reply.

"Never had an accident in your life?"

"Nope. A rattler bit me once, though."

"Well, don't you call that an accident?"

"Naw, he bit me on purpose."

"Agatha has the most exaggerated idea of her abilities."

"Why so?"

"Her mother wrote me that she had double pneumonia and was in bed with three doctors."—Rice Owl.

APPENDICITIS MORTALITY IN 1605 CASES*

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This paper is a continuation of a study of 1605 consecutive cases involving inflammation of the appendix and taken from the records of Passavant Memorial Hospital, Jacksonville, Illinois.

The first[1] paper classified the cases in four groups and showed the number of cases, mortality, etc., for each operator, in each group. The second[2] paper sought a basic mortality rate by which operators and authors could compare their work, and determine whether it met the average standards of such work by operators in general as reported in our current surgical literature.

Before taking up the records of the deaths in this group a word about the method by which the Hospital arrives at its facts will be necessary. As cases are discharged from the Hospital a "Summary Card" (Table 1) is made for each diagnosis but it also carries a reference number to each of the several diagnoses which may belong to the case. This is accomplished by the use of numbers from the author's expansion of the Medical Division of the Dewey Decimal Classification.

SUMMARY CARD

Index No. 616.3452.087. **Passavant Hospital No.** 16807

Cross Reference No's. 618.11 087; 618.12.087.
Date Admis. 12/27/22 **Date Disch.** 1/24/23 **Age** 17. **Sex** F.
Civil Con. S. **Occupation** Student.
Attended by Carl E. Black **Referred by** Josephine Milligan
Days Illness prior to entering Hospital Ten (10)
Days in Hospital prior to Operation Three (3)
Diagnosis Appendicitis and Salpingitis—sub-acute.
Pathology Sub-acute inflammation of Appendix and Chronic inflammation of right tube and ovary. Many adhesions.
Operation Appendectomy and Salpingo-oophorectomy.
Complications Patient made prompt recovery without wound infection or peritonitis.
Remarks No pus seen and wound closed without drainage.
Condition on Discharge Recovered—condition excellent.

Table 1. Card used by Passavant Memorial Hospital, Jacksonville, Ill. (Card used is 3 x 5 inches.)

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*Read before the Section on Surgery at Annual Meeting of the Illinois State Medical Society, Springfield, Illinois, May 18, 1932.

1. A plan for Measuring Surgical Results in a Community Hospital. Read before the Hospital Standardization Conference, Clinical Congress of the American College of Surgeons, New York, Oct. 12-16, 1931. Bulletin of the American College of Surgeons, March, 1932.

2. Appendicitis Statistics. Read before the Western Surgical Association, Denver, Colo., Dec. 5, 1931. The Western Journal of Surgery, April, 1932.

The illustrative card, for example, shows that case No. 16807 had an operation on the appendix (616.3452.087) and also operations on the fallopian tube (618.11.087) and the ovary (618.12.087). Therefore three "Summary Cards" will be found in the files for patient No. 16807. All the data necessary for the study is to be found on the "Summary Card" and it is the combination of this data for all cases of a given group that completes the study. The cards for a given period are then separated into groups by surgeons, and a sheet (Table 2) made for each surgeon, for each disease, or operation, for each year. This shows the work by months and permits us to make a seasonal study of each disease or operation and also to show the relation to age, sex, civil condition, occupation, etc. By combining the work of members of the staff for any given period we are able to show not only the work of each surgeon but also the work of the Hospital for the period as illustrated in Table 3.

Appendix—Chronic infection. Surgeon N

Month	Number of Patients	Days in the Hospital	Illness prior to Entering Hospital	Days in Hospital Prior to Operation	Ages								Sex		Civil Condition			Condition on Discharge					Infection					Other Diseases and Operations					Appendix			Other Data						
					Under 10	10 — 19	20 — 29	30 — 39	40 — 49	50 — 59	60 — 69	70 and over	Male	Female	Single	Married	Unimproved	Improved	Recovered	Died	Died of Multiple Op.	Pus Present	Peritonitis	Spreading Peritonitis	Post-operative Infection	Post-op. Complication	Other Diseases	Other Major Op.	Other Minor Op.	Two Other Major Op.	Three Other Major Op.	Only Appendix Removed	Appendix not Removed	Appendix Pathology	Pre-operative Rating of Risk - Good - Fair - Bad					Referring Physicians	Autopsy
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
January	3	22, 21, 3					1	1	1				1	2	1	2		1	2									1		1		1	1									
February	1	24					1							1	1				1												1										
March	2	14, 14					1		1				1	1		2			2												2										
April	2	29, 39						1	1				1	1		2			2									2		1										
May	1	42								1				1		1			1									1		1										
June	5	2					1							1		1		1									1					1									
July	3	16, 26, 21, 30 39				1	2		2					5	2	3			5									4		1		1									
August	3	35, 31, 3				2				1			1	2	2	1		1	2								2					2	1								
September																																									
October	3	16, 15, 23				1	1	1					2	1	2	1			3													2	1								
November	2	14, 28			1		1						1	1	2				2									2		1										
December	1	21				1								1	1				1								1					1									
Totals	24				1	5	8	3	5	2			7	17	11	13		3	21								4	10		5		11	3								
Average		21																																							
Percentage																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43

Table 2. Check sheet used by Passavant Memorial Hospital, Jacksonville, Ill. A separate sheet is used for each Surgeon and for each disease.

Complete Summary of All Appendix Cases 1923 (1916) to 1931, Incl.

Surgeon	Acute				Chronic				Abscess & Perforation				Gangrenous				Totals			
	Cases	Died	% of Deaths	Av. Days in Hosp.	Cases	Died	% of Deaths	Av. Days in Hosp.	Cases	Died	% of Deaths	Av. Days in Hosp.	Cases	Died	% of Deaths	Av. Days in Hosp.	Cases	Died	% of Deaths	Av. Days in Hosp.
K.....	158	4	2.56	11+	167	5	2.90	17	46	4	8.34	20+	4	1	25.00	13+	373	14	3.75	15+
N.....	194	7	3.60	17+	316	4	1.26	20	73	17	23.28	17+	44	5	11.60	25+	626	32	5.11	19+
U.....	180	4	2.22	17+	140	8	5.71	20+	46	13	28.36	25+	28	5	12.86	28+	394	30	8.08	20+
Total.....	530	15	2.79	12+	623	17	3.29	19+	165	34	19.66	20+	76	11	18.15	22+	1393	76	5.64	18+
E.....	14	0	0.00	8+	6	0	0.00	14+	2	0	0.00	25+	0	0	0.00	0	22	0	0.00	15+
Misc.....	10	0	0.00	11+	10	0	0.00	11+	5	1	20.00	26+	0	0	0.00	0	25	1	4.00	16
Q.....	18	0	0.00	13+	6	0	0.00	13+	3	2	66.66	10+	1	0	0.00	22+	28	2	7.14	14+
B.....	10	0	0.00	17+	12	0	0.00	14+	10	0	0.00	27+	2	0	0.00	24+	34	0	0.00	20+
W-1.....	24	0	0.00	15+	19	0	0.00	19+	1	0	0.00	14	2	0	0.00	47+	42	0	0.00	23+
A.....	20	0	0.00	14+	31	0	0.00	15+	6	1	16.66	21	1	0	0.00	24+	59	1	1.69	15+
Total.....	96	0	0.00	13+	84	0	0.00	14+	27	4	17.22	20+	6	0	0.00	29+	210	4	2.15	17+
Grand total	626	15	2.79	14+	707	17	3.25	16+	192	42	22.31	20+	82	11	13.50	26+	1603	80	4.88	17+
																	Error 2			
																	1605			

Table 3. Shows the details for each operator in Passavant Memorial Hospital with the cases in groups. The first group represents the regular operators and the second group what might be called the "occasional operators," that is, those who have had less than 35 cases in any one group. It is interesting to note the comparative mortalities of the two groups. Contrary to most statistical reports, the "occasional operators" have a considerably lower mortality than the regular operators.

If these cards and sheets are kept from day to day as patients are discharged it is not burdensome to the Record Librarian and enables the Hospital to know just what its staff is doing.

It is an inventory and balance sheet of the professional work. You will notice that the plan is worked out in such a way that no one but the Record Librarian knows the name of the patient or the names of the operators or physicians. The first is known by its Hospital number and the second by a key letter. The name of the patient can be obtained by following the case number back to the admission card. The Record Librarian arranges a new key of letters for the doctors in each study made.

Originally the operations on the appendix were selected for this study simply because it was the most frequent major procedure and was well adapted to show the quality of work being done by the staff. As you will notice in Table 3 the combined mortality for the 1605 cases for the period was 4.88%—that is, there were 82 deaths. The table only shows 80 deaths and 1603 patients as there were two deaths finally eliminated as not meeting the requirements of that study but they are included in this present study.

It is claimed by some that the mortality from appendicitis has been increasing. While the statistics brought forward are not conclusive, there is room for argument. The main difficulty is with the reasons brought forward for the increase. Among these is the fact that many physicians with no claim to special surgical training are operating on these cases. As you will note, in Table 3 of this paper, my statistics do not bear out this conclusion as E.B.Q., etc., who are classified as "Occasional Operations," (that is, they did not have sixty (60) cases in nine years), had a lower average mortality rate than the three regular surgeons. Again in my second

paper on "Appendicitis Statistics," Quain of Bismarck, North Dakota, and Harbin of Rome, Ga., reported much lower mortality rates than Deaver, Gatch and a number of others who operate in large Metropolitan Clinics. This is true notwithstanding the fact that in Harbin's second report the statistics represent 663 operators and 6333 cases. It shows the influence of a campaign among hospitals, for better work. Another reason for questioning the statistics used to prove an increase in the operative mortality of appendicitis is the effort to compare death rates from the registration area or from the country at large or from other countries with various operative mortalities reported.

Tables 4 and 5 give the ages, sex and civil condition of the eighty-two patients that died. These facts have no special significance

Ages of Patients at Death—Appendicitis

Ages in Years	10–	10-20	20-30	30-40	40-50	50-60	60-70	70+	Total
Acute Cases.....	2	1	4	4	1	3	1	2	18
Suppurative Cases..	5	7	5	3	6	1	0	1	28
Gangrenous Cases..	3	3	2	2	2	5	1	0	18
Chronic Cases.....	0	0	3	4	5	2	4	0	18
Total for each age	10	11	14	13	14	11	6	3	82

Table 4. Ages of patients who died of appendicitis given in groups and totals.

Sex and Civil Condition of Patients Dying of Appendicits

	Male	Female	Total	Single	Married	Total
Acute Cases.....	10	8	18	6	12	18
Suppurative Cases..	16	12	28	15	13	28
Gangrenous Cases .	11	7	18	10	8	18
Chronic Cases.....	2	16	18	2	16	18
Totals.....	39	43	82	33	49	82

Table 5. Sex and civil condition of patients who died of Appendicitis.

as to the cause of death except in a negative way. All classes seem to be equally involved, or at least there is about the same ratio as those afflicted with disease of the appendix which recover.

The questions surrounding the duration of illness are much more to the point of this presentation. This question is set out at some length in Table 6. In the first column is given the duration of illness prior to entering the hospital. The legends at the side of the chart divide them into three groups, namely: early cases, late cases, and neglected cases. I realize that the group of early cases is too generous. It is doubtful whether a case of three days duration should be regarded as an early case. It would be better to regard all cases of more than forty eight hours as *late cases*,

There is a decided increase in mortality after the first twenty-four hours as shown by many competent reporters. Some surgeons classify all cases of more than twenty-four hours as late cases. Evidently those referring cases to our Hospital have not been sufficiently impressed with the great advantage in immediate surgical relief in appendicitis. This fact is fully borne out by our statistical showing.

In sixty cases our records had definite information of the length of illness prior to entering the hospital. Only thirteen of those that died were sent in within the first twenty-four hours, and ten within the first forty-eight hours. All the others were very late, and two had been sick fifty or more days.

Column two shows the time from entering the hospital until operation. Here we see that forty-three cases were operated on immedately after admission and twenty on the next morning. This is a total of sixty-four practically immediate operations, out of the total of eighty-two cases. Those that were operated on the morning after admission were practically all cases admitted in the night or late afternoon previous.

Column three shows the length of time the patients survived following operation. That is twenty-seven cases died within the first twenty-four hours. These facts will be enlarged on later.

Column four gives the total length of illness for the eighty-two deaths as far as the records were complete and their incompleteness pertains almost wholly to the failure on the part of the attending physician to record the illness prior to entering the hospital.

There were twenty-three such cases. Twenty-two cases had a total illness of five days or less, and twenty-one cases were ill between

APPENDICITIS DEATHS
Passavant Memorial Hospital, Jacksonville, Illinois
DURATION OF ILLNESS

	Time in Days	Prior to entering Hospital					Entering Hospital to Operation					From Operation to Death					Total Illness					
		Acute	Suppurative	Gangrenous	Chronic	Total	Acute	Suppurative	Gangrenous	Chronic	Total	Acute	Suppurative	Gangrenous	Chronic	Total	Acute	Suppurative	Gangrenous	Chronic	Total	
	0						6	22	13	2	43			1	1	2						
	1	1	7	3	2	13	4	5	4	8	21	6	5	7	7	25						
Early Cases.....30	2	3	6	1		10	2			1	3	2	3	1	1	7						22 Cases
	3	3	1	3		7	1			1	2	2	4	2	2	10	2	3	1	1	7	
	4	2	5	4		11								1	1	2		2	2		4	
	5		2	1		3				1	1	1	5			6	4	3	4		11	
	6			1		1				1	1	1	2	2		5	2	3	1		6	
Late Cases.....18	7	2		1		3	1			1	2	2	1		2	5		4	2		6	
	8																1	1	1		3	21 Cases
	9																		1		1	
	10	1				1				1	1		3	1	1	5	3	2			5	
	20	1	3	1	3	8				2	2		2	1	1	4		1	1	1	3	
Neglected Cases.....12	30				1	1							1	1	1	3	1	2	1	3	7	16 Cases
	40																	1		1	2	
	50	1			1	2								1	1	2	1	1	1	1	4	
	No Operation						4		1		5	4				4						
Not Stated.....22	Not Stated	4	4	3	11	22		1			1		2			2	4	5	3	11	23	23 Cases
Total.....82	Total.....	18	28	18	18	82	18	28	18	18	82	18	28	18	18	82	18	28	18	18	82	82 Cases
		Average 7 days					Average 2.8 days					Average 6.7 days					Average 13.6 days					

Table 6. An analysis of the length of illness in patients who died of appendicitis. The table shows (a) Illness prior to entering hospital (b) Time from entering hospital to operation (c) Time from operation until death (d) Total length of illness, and (e) Early, late and neglected cases.

six and ten days. The average illness of all cases was thirteen and six tenths days, but this average includes sixteen cases that were ill from twenty to fifty days.

Such facts do not make us very happy about our results and the purpose of this analysis is to seek the reasons. Theoretically, at least, no case of appendicitis should die, and whatever the cause may be, the blame is placed at the doors of the surgeons whether it belongs there or not. We are trying to find out how much of it belongs there.

This brings us to Table 7. Here again the cases are divided into four groups. In seventy-six of the eighty-two cases the clinical history justified the diagnosis. There were six in which there were diagnostic errors which influenced the result. For example, one of these plainly had a pneumonia at the time of operation and died of pneumonia. On the whole the diagnoses were well supported.

As to the second point we ask "should operation have been postponed?" This question requires some explanation. You will notice that

Analysis of Case Records of Appendicitis Deaths (1916) 1923-1931
Passavant Memorial Hospital, Jacksonville, Illinois

	Acute 18		Suppurative 28		Gangrenous 18		Chronic 18		Totals 82		Total Cases
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Did clinical history justify operation?	15	3	28	0	18	0	15	3	76	6	82
Should operation have been postponed?	11	7	21	7	15	3	10	8	57	25	82
Was too much surgery undertaken?—(at the time)	11	7	17	11	14	4	11	7	53	29	82
Was pre-operative support adequate?	4	14	5	23	1	17	2	16	12	70	82
Was post-operative support adequate?	5	13	5	23	1	17	2	16	13	69	82
Was patient treated medically too long?—(more than three days)	6	12	8	20	9	9	4	14	27	55	82

Table 7. An analysis of the records in answer to the questions (a) Did chemical history justify operation? (b) Should operation have been postponed? (c) Was too much surgery undertaken (at the time)? (d) Was pre-operative support adequate? (e) Was post operative support adequate? (f) Was patient treated medically too long?

we have indicated that in fifty-seven of these cases we think the operation should have been postponed. This opinion is based on the fact that the records show that the patient had not been studied with sufficient care. The laboratory work was incomplete or showed plainly that the case was a poor operative risk, and no adequate effort had been made to give the patient needed support.

These questions are answered more specifically in the next four questions. When we ask whether too much surgery was undertaken we mean "considering the condition of the patient." By looking at Table 10 the basis of our conclusions will become clear as will also the questions regarding pre-operative and post-operative support. It is also plain from the records that twenty-seven cases were treated medically entirely too long. It is too bad that the public eye cannot see that the onus of these cases does not belong on the surgeon.

In Table 8 we have followed the method used by Gustaf Petren of Lund, Sweden, in making an analysis of the deaths in the surgical clinic of the University of Lund. You will notice that forty-one, just one-half, of these cases died of the "primary lesion" and "errors in diagnosis" and "technically faulty or incomplete operations" accounted for thirteen of the other half. This leaves twenty-eight cases in which death was caused by some other factors which may be regarded as a complicating disease.

Appendicitis—Causes of Post-Operative Deaths

	Acute	Suppurative	Gangrenous	Chronic	Totals
Primary disease or lesion itself	6	17	14	4	41
Bad general condition. Shock	2			2	4
Errors in diagnosis	5	1		1	7
Technically faulty or incomplete operation	1	3		2	6
Post-Operative infection		3		2	5
Special post-operative complications. Ileus		1	1	1	3
Pneumonia	3	2	1	3	9
Myocarditis. Acute dilatation of heart			2	2	4
Pulmonary embolism. Thrombosis	1				1
Uncertain cause (often despite autopsy)		1		1	2
Totals	18	28	18	18	82

Table 8. An analysis of post-operative deaths, after the plan of Gustaf Petren, showing the causes of death under several headings.

Post-operative infection accounted for five deaths which is entirely too high, but is low when taken as a proportion of the whole group of 1605 cases. While it has not been computed for all cases it is fair to assume that 5% of all

cases had post-operative infections. This again is entirely too high and shows faulty technique.

Nine died of pneumonia although at least one of these was terminal in a peritonitis case and in our list of deaths is so classified. (See Table 7.) It is worthy of note that all the pneumonia deaths except one (nitrous-oxide oxygen anesthesia) were in cases having ether anesthesia.

A recent communication from Dr. R. M. Harbin of Rome, Ga., who has a remarkably low mortality record in these cases, says "we have operated immediately in all cases (appendicitis) after a positive diagnosis, for the reason that we have felt incapable of diagnosing the intermediate stage of Ochsner. We have tried it in years past only to fail in many cases."

We readily agree that all suitable cases should be operated on immediately and Dr. Harbin and a few others seem to have been fortunate enough to get their cases sufficiently early. However, it is just this class of cases, which come to us late, that gives the larger proportion of the mortality.

We would call your attention to tables 9 and 10. We believe these tables give the answer. Notice the cases which died of peritonitis. Eighty per cent. of these had abdominal distention; seventy-two per cent. had general rigidity; fifty-seven per cent. had an abundance of albumin in the urine; and forty-two per cent. had an abundance of casts in the urine. This group of clinical and laboratory findings spells extending general peritonitis.

We did not include statistics on diacetic and acetone in the urine and the kidney function for the reason that these have only been routine with us for a few years but a very large percentage of such cases show marked diacetic and acetone and a low kidney function.

PERITONITIS—Relation to Operative Deaths; 1605 Cases—82 Deaths

Clinical and Laboratory Findings Stated in Percentages

	Prior to Operation						
	Distention	Rigidity		Peritonitis	Albumin		Casts
		General	Right Sided		Abundant	Trace	
All Cases (1605)	16	3	50	40	26	10	8
Peritonitis—Recovered	43	15	68	100	19	31	25
Peritonitis—Died	80	72	10	100	57	2	42
Other causes of death	6	12	10	10	12	5	11

Table 9. Shows the relation of Peritonitis to Appendicitis Deaths. Abdominal Distention, General Rigidity and Albumin and Casts in the Urine are danger signals too frequently disregarded.

Peritonitis—Incidence in 1605 Cases Involving the Appendix

Some Degree of Peritonitis Recorded in 642 Cases.
Slight or Moderate Peritonitis Recorded in 479 Cases.
Spreading Peritonitis Recorded in 163 Cases.

Table 10. Shows incidence of Peritonitis in all cases of Appendicitis.

The showing in this table, we think, should be sufficiently convincing. There will always be a small percentage of unavoidable deaths in these cases as shown in the other tables.

Peritonitis is the outstanding cause of death in appendicitis and here as in many other diseases prevention by early operation is the ideal method. The laity as well as the average physician are not sufficiently impressed with the necessity of using every means of preventing peritonitis. But fifty-four (over 65%) of our eighty-two deaths were from peritonitis.

Only forty-three per cent. of the peritonitis cases which recovered were recorded as having any distention and sixty-eight per cent. had only right sided rigidity which is an expected diagnostic sign. Only nineteen per cent. had abundant albumin in the urine and only twenty-five per cent. had any casts. Of course many cases in this group had a narrow escape but they did recover. These were cases in which most of the laboratory findings and clinical signs were present, but in a moderate degree compared with those that died.

CAUSE OF DEATH

Appendix Diseases—Passavant Memorial Hospital 1923 (1916) 1931. Names as Taken from Hospital Records

Name	No. of Cases
1. Anaphalactic Shock	1
2. Broncho-Pneumonia	1
3. Cardiac Dilatation	2
4. Exhaustion of Septicaemia	2
5. Mesenteric Thrombosis	2
6. Meningitis	1
7. Myocarditis	1
8. Obstruction of Bowels	1
9. Paralytic Ileus	3
10. Peritonitis	50
11. Pneumonia	6
12. Pulmonary Embolism	1
13. Septicaemia	1
14. Shock	1
15. Spreading Peritonitis	7
16. Toxaemia	1
17. Unknown	1
Total	82
Not Operated on — (are in above list)	4

Table 11. Causes of Death in Appendicitis as recorded by the operator on his Hospital Record.

CAUSES OF DEATH

Appendix Disease—Passavant Memorial Hospital from Analysis of Hospital Records—1923 (1916) 1931

Name	No. of Cases
Acute Dilatation of Heart	3
Broncho-Pneumonia	1
Hemorrhage	1
Ileus	3
Myocarditis	2
Peritonitis	54
Pneumonia	8
Pulmonary Embolism	1
Shock	9
Total	82

Table 12. Causes of Death in Appendicitis as seen by the Author in his analysis of the Records.

Table 11 shows the causes of death as they were recorded on the Hospital Records and table 12 shows the causes of death as interpreted by this reporter, taking the whole record into consideration.

The lesson from these comparisons seems perfectly obvious and supplies data on which we can act. While at present there seems to be no standardized treatment for spreading peritonitis we believe the method we will describe would be the standard method, in cases which have been neglected until spreading peritonitis is present. It is difficult and often impossible to make a physical diagnosis of spreading peritonitis but a clinical diagnosis can be made in most cases, if all the signs and symptoms are taken into consideration. Any case of appendicitis which has a distended and rigid abdomen, albumin, casts, and diacetic and acetone in the urine and a kidney function below 35% must be recognized as one with spreading peritonitis and should not be operated on until these conditions can be improved.

Such patients are always thoroughly dehydrated and must have preoperative preparation if they are to weather the storm. In our experience a greater percentage of such cases can be saved by preoperative preparation than by operation. After the fluid balance is restored the appendix can be removed.

We follow a plan (not original with us) which brings many such cases into an operative condition. We secure intra-abdominal rest with morphine and rehydrate them with intravenous glucose and chlorides. Fluids are pushed in every way. Often vomiting interferes with the taking of fluids by mouth. The rectum is not always a satisfactory route for glucose. The intravenous glucose is given in some cases by the continuous method of Matas. We recently had a case where the intravenous glucose and chlorides were given continuously for ninety-six hours in the vein of one arm and then for eighty-eight hours in the vein of the other arm; a total of one hundred and eighty-four hours. The patient was vomiting continuously and this was the only way we could rehydrate her and restore the chloride balance. She recovered.

Such cases are the poorest possible risks for operative surgery but a goodly percentage of them can be saved by this method. In even mildly questionable risks we not only give the intravenous glucose prior to operation but we give it during the operation. Such patients are returned to bed in good condition and the glucose is repeated after the operation. We must continue to push fluids until the urine and kidney function are normal and the distention and rigidity have disappeared.

The public and the physicians should always remember that an operation within the first twenty-four hours is the ideal method of safety in appendicitis but when we have these frank peritonitis cases we should not fail to have full laboratory examination and then be guided by it as well as the obvious clinical condition.

In reviewing these records I have been struck

with two things. First, there is such haste to operate that the laboratory work is not complete. This is an error. All the laboratory work including the kidney function can be done in less than one hour—that is, while the set up for operation is being made. Second, even after the laboratory work is done its obvious indications are ignored.

We should not operate in the face of abdominal distention, general rigidity, albumin, casts and acetone and diacetic in the urine and low kidney function as was done in many of these cases. Remember that preoperative preparation and post operative support will save many of these cases and avoid the burden of mortality which the surgeons are carrying. This we think is the main lesson to be drawn from the analysis of these eighty-two deaths.

SUMMARY

The analysis of any considerable group of cases has lessons to teach if we will find them and heed them.

The obvious lessons is these cases are:

1. There is too much delay on the part of either patient, physician, or surgeon in bringing these cases to operation.

2. There are too many errors in the diagnoses of extending peritonitis.

3. Post-operative infections are still too much of a factor in our operative work.

4. Multiple operation adds to the mortality and should only be done when absolutely necessary or when the patient's condition makes it perfectly safe.

5. The judgment as to when to operate does not sufficiently correlate the clinical and laboratory findings.

6. Too many patients are operated on hastily without sufficient study.

7. Not enough attention is given to preoperative preparation in restoring the chloride balance and the fluid balance.

8. No patient who has a distended, rigid abdomen, albumin, casts and diacetic and acetone in the urine and a low kidney function should be operated on until the chloride balance and fluid balance is restored.

9. More attention must be given post-operative support in maintaining the chloride and fluid balances.

10. We should be willing to discuss in our staff-meeting all such facts frankly and freely. All surgeons should seek and give free criticism of our daily work, in the interest of the sick and to promote better work.

SURGICAL MORTALITY AND MORBIDITY AND FACTORS CONTROLLING SAME*

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CHICAGO

The subject of surgical mortality and morbidity is of interest to the surgeon, internist, pathologist and roentgenologist. Improvement depends upon closer study and cooperation of all.

It is my experience that many surgeons who do not keep accurate records of their mortality and morbidity have a much higher mortality rate than they imagine. I believe that every surgeon should adopt a definite plan of study of his mortality and morbidity rate and that this survey should be carefully made every month, because much can be learned from such a survey and probably both surgical mortality and morbidity would be reduced to some extent if such systematic surveys were regularly made. It is, of course, obvious that different surgical clinics will have a wide range in their mortality and morbidity statistics, and this wide range will probably represent only a difference in working conditions. I think we might summarize the difference under four headings:

First, the location of the surgical clinic, which will take into consideration the difference between a large number of emergency and acute conditions, contrasted to a clinic where their cases are largely made up of ambulatory cases.

Second, the boldness of the surgeon will make a great difference, because the one who is extremely conservative, always having first in mind the definite idea of a low mortality and morbidity rate, as contrasted to the other type who does not consider this factor, but acts entirely with surgical boldness and skill.

Third, the conscientiousness of the surgeon may have some bearing on mortality and morbidity statistics.

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*Read before Section on Surgery at the Annual Meeting of Illinois State Medical Society, Springfield, May 18, 1932.

Fourth, and perhaps the most important of all these considerations, is the well organized hospital staff or group, working in cooperation to give the patient the best that organized group practice can offer.

Petren[1] of the Lund Surgical Clinic, of Lund, Sweden, reports on the mortality of the Lund Surgical Clinic for a group of cases between 1922 and 1928, covering a period of seven years. Out of one series of 3,363 cases reported, there was a mortality rate of 209, or about 6¼%. The mortality rate of their entire series is not given. Of these 3,363 cases, there were the following groups of operations:

Brain Tumor	75
Kidney Operations	266
Appendicitis Operations	2192
Operations on the Gall Tract	457
Operations for Exophthalmic Goiter	199
Prostatectomy	170

The total number of deaths in the Lund Surgical Clinic in seven years was 856. Petren has attempted to classify these cases as to the cause of death, and gives the following classification:

1. Primary disease or the lesion itself	382
2. Bad general condition	75
3. Errors in diagnosis and incorrect expectant treatment	11
4. Faulty or incomplete operations	37
5. Post-operative infection	32
6. Special Post-operative complications	81
7. Pneumonia, Pulmonary, Abscess and Bronchitis	145
8. Pulmonary Embolism and Thrombosis	78
9. Uncertain causes	15

Neuhof and Aufses[2] report statistics covering 800 deaths from New York hospitals. They attempt in their study to determine the cause of death in these cases, and list the causes of death as follows:

1. Original disease	336 or 42	%
2. Suppuration	204 "	25.5%
3. Suppuration and Systemic disease	12 "	1.5%
4. Suppuration and Pneumonia	32 "	4%
5. Pneumonia	62 "	8%
6. Pneumonia with systemic disease	28 "	3.5%
7. Miscellaneous	126 "	15.5%

The miscellaneous group contains the following number of cases:

Cardiac disease and arteriosclerosis	34
Embolism and thrombosis	25
Ileus (non-peritonitic)	23
Hemorrhage	16
Renal disease	9
Pulmonary tuberculosis	8
Duodenal fistula	4
Acute yellow atrophy of the liver	2
Pulmonary atelectasis	1
Ruptured urinary bladder*	1
Acute appendicitis*	1
Acute pancreatitis*	1
Tetanus	1

*Unassociated with original disease.

You will notice that Lund classifies his causes of death under nine headings, and Neuhof and Aufses under seven headings. These classifications show the difficulty in reaching a definite understanding as to the cause of surgical mortality and give rise again to the question of some definite standard if our statistics are to be of great value. It is evident from both series that the original disease, or extension of it, combine the largest percentage.

We might say, offhand, that we have little opportunity of combating this type of mortality, but if we will assume that perhaps a large number of these cases had reached the surgical clinic at an earlier period that this mortality rate would have been considerably lower. Their not reaching the clinic at an earlier date may have been the result of one of two things. First, that they did not consult a doctor early and second, that if they did consult the doctor early, he failed to recognize the gravity of the situation and refer them for early treatment. Third consideration is that there is nothing in these reports that gives any definite information as to the preoperative preparation of these cases to withstand surgical treatment.

You will notice in Lund's report that he classifies seventy-five deaths as a result of a bad general condition. Is it possible that the bad general condition could have been improved through preoperative management?

Pneumonia, lung abscess and bronchitis also presents one of the interesting parts in the mortality of these groups. It was present in 145 cases at the Lund Clinic and in 122 of the report by Neuhof and Aufses, making a total of 267 out of a total of 1656 deaths, or about 16% of our surgical mortality resulted from pneumonia, lung abscess and bronchitis 103 cases of embolism and thrombosis also occurred, or about 6½%. I think this should offer a definite challenge to us in the prevention of post-operative pneumonia and in the prevention of embolism and thrombosis. Graham[3] has devised a definite plan of post-operative care in which he feels that he has lowered both the occurrence of pneumonia and of embolism and thrombosis.

Post-operative infection and suppuration was the cause of death in about 14% of the cases reported in these two series. A striking contrast in the two reports is that out of the series from the Lund Surgical Clinic, they

report post-operative infection in 32 cases out of 856, and Neuhof and Aufses report a total of 204 out of a series of 800 deaths. These infections occurred in cases that were not infected at time of operation. In other words, they occurred in clean surgical cases.

As formerly stated, if we are to make a careful study of the records of our mortality cases, that study must be made with the view in mind of the possibility of reducing our mortality and also our morbidity rate. It is further obvious that such a study, if to be beneficial, must prove quite definitely errors perhaps of judgment and omission on the part of the surgeon or the surgical group. With this thought in mind for some time past I have analyzed the surgical mortality occurring in my own cases along a definite line and am quite sure that it has been extremely beneficial in the better handling of our surgical cases.

We have attempted to classify this study of our surgical records in the mortality cases, with the idea definitely in mind of ascertaining whether or not these patients have had the care that we must assume that every surgical case is entitled to and it has been made with a definite effort to determine our own shortcomings in the handling of these cases. It may at times not be pleasant to bring incriminating evidence against oneself, but it is at least educational and beneficial. We assume that every individual presenting himself or herself for surgical treatment is entitled to some very definite consideration in the handling of his or her case. Therefore, we have outlined the following plan for this study for all our records and when a patient is dismissed the record is analyzed on the following basis:

1. The history and physical examination.
2. The X-ray and laboratory examination.
3. Pre-operative treatment.
4. The choice of operation.
5. Technique of operation.
6. The choice of anesthesia.
7. The immediate and post-operative treatment.
8. The complications and whether or not those complications have been properly recorded on the patient's record and properly treated.
9. The errors of diagnosis.
10. Number of post-mortems held.
11. The causes of death.

It seems to me any patient undergoing a surgical operation is entitled to consideration of all of the facts herein noted, because lack of fulfillment of these conditions may be the contributing factor to a surgical mortality; not, of course, including postmortem examination.

The history and physical examination is extremely important because upon this depends, to a large extent, the type of laboratory examinations required. The x-ray and laboratory examinations as indicated in each case by the history and physical examination. may again be the most important factor concerned in the establishing of a diagnosis and existing complications. Laboratory work is of special value, of course, in those cases past middle life and in debilitated patients, because an accurate knowledge, particularly of blood chemistry, may be the determining factor in mortality and morbidity. The pre-operative treatment is necessarily based upon the information gained up to this time, for if we find abnormal blood chemistry, or pulmonary or cardiac findings, our pre-operative treatment must be aimed at the correction or stabilization of those conditions before operative treatment is pursued. The choice of operation, therefore, logically follows.

In those cases that are, to some extent, debilitated or handicapped, they should have the type of operation that is the simplest in technique and the simplest to perform, and in those cases where possible it may resolve itself into a two-stage operation.

The choice of anesthesia is also important and can logically be based upon the factors already ascertained, and it is my opinion that the choice of anesthesia should depend entirely upon the type of case. In other words, we should not fall into a routine of using only one form of anesthesia for all surgical patients.

The immediate and post-operative treatment follows logically and is based entirely on the preceding progress of this case and dependent further upon the complications that may occur during convalescence. In many of these cases, continuous laboratory examinations are necessary, especially in those cases where abnormal findings were found pre-operative, and in those cases where complications occur following operation.

Errors in diagnosis are not always fatal to the patient if the foregoing procedure has been adhered to, because we frequently meet a surgical abdomen in which we are not able

to establish the diagnosis definitely, and frequently this offers no ill-result in the case.

We list post-mortem examinations because we feel that after all post-mortem examinations furnish us our most valuable information. While they may be difficult to secure, well organized hospital staffs can develop this part of the work to a very high percentage.

In arriving at the causes of death we are not only interested in what the patient died from, but why the patient died from this condition. The knowledge that the patient died from pneumonia must be followed by asking, "Why did this patient contract pneumonia?" The same is true of post-operative infection. If the patient dies from a post-operative infection that is a definite thing, but we must be interested in why we have post-operative infections and what can be done to prevent such complications.

In presenting this analysis of the study of our surgical mortality of 26 cases occurring out of a total of 746 major cases in 1928 and 1929, we find the following information: That a complete history and physical examination occurred in 24 out of 26 cases, or approximately 93%. That means that at least two of our cases did not have the proper history and physical examination and, therefore, that may have contributed to some lack of proper pre-operative treatment, proper laboratory work, proper choice of operation and proper choice of anesthesia.

We find in regard to x-ray work and laboratory examinations that 23 out of 26, or 89%, received what we thought and think to be complete work in regard to their cases. This leaves three in our mortality group who did not have what we now consider they should have had in laboratory examinations.

Our pre-operative treatment seemed satisfactory in 22 out of 26 cases, or about 85%.

Choice of operation, we felt, was correct in 24 out of 26 cases, or 93%. The two cases in which we feel that the choice of operation were not correct are as follows:

1. Hypothyroidism, associated with substernal goiter, showing a slight deviation of the trachea. A sub-total thyroidectomy was performed on this patient. Patient developed a trachea collapse, necessitating tracheotomy which was followed by pneumonia. We feel in this case that if one lobe had been removed and allowed the trachea to stablize itself, and then removed the other lobe at a later date, we probably would have avoided this mortality.

The second case was that of a localized appendiceal abscess in which the appendix was removed, followed by general peritonitis. Probably if we had been content to drain this might have been avoided, although it has been our custom to remove the appendix in these cases where the appendix was easily accessible.

The technique of operation we felt was correct in 24 out of 26 cases, or 93%. The two cases in which we felt that the technique was faulty is as follows:

1. Case of post-operative hemorrhage, following appendectomy and cholecystecomy. The cystic artery in this case was isolated and ligated. The patient was extremely thin and the operation was not at all difficult. Ten hours following operation hemorrhage occurred. The abdomen was opened, the ligature had come off the cystic artery. It was again ligated, transfusion was immediately restored to and the patient seemed to be out of shock and danger, but following a twenty-four hour period the patient developed an acute dilatation of the stomach which was treated by gastric lavage and subcutaneous and intravenous salt solution and glucose for a period of five days, when the patient expired. This hemorrhage was undoubtedly the result of a poorly tied ligature on the cystic artery and can only remind us of the great care that must be used in ligating arteries. While this is the only case of post-operative hemorrhage I have encountered in fifteen years, it must serve its lesson.

2. The second case was a large fibroid uterus with a bilateral salpingitis of long standing in which the pelvis was frozen. In this spread of adhesions the bowel was ruptured and peritonitis followed. I think perhaps that choice of anesthesia might have averted this condition and perhaps spinal anesthesia, with complete relaxation, should have been indicated here.

The immediate and post-operative treatment was satisfactory in our review in 22 out of 26 cases, or 85%, leaving four cases in which we feel that the post-operative treatment was not complete. Two of these cases were cases in which dilatation of the stomach followed operation, which was treated by continuous lavage, intravenous and subcutaneous fluids, but it is barely possible that if a blood chloride had been established we might have found an alkalosis instead of an acidosis condition present, which would have respond-

ed to sodium chloride. At least, we have had two cases of similar nature since these two deaths occurred.

The second case is one in which we have listed the cause of death as unknown. The operation was a hysterectomy for fibroid uterus. The patient was in the hospital several days before the operation and complete examinations were made which we feel were, in every way, entirely satisfactory and we did not consider this case anything but a first-class surgical risk. Ten hours following operation she developed a tachycardia with no other symptoms. This tachycardia increased the pulse, reaching 160 per minute. Intravenous fluids were given and large doses of digitalis. We felt, for some unknown reason, that we might be dealing with a mild cardiac collapse. Post-mortem examination showed the heart to be perfectly normal, lungs perfectly normal, and kidneys perfectly normal. In fact, we could not ascertain any cause for death by post-mortem. It is my impression, at the present time, that this patient was suffering from a low venous pressure and that tachycardia was the result of this and not of myocardial degeneration, and perhaps if this case had received large doses of strychnine and inhalations of carbon dioxide that normal venous pressure might have been restored and saved another mortality.

The third case was in a gun-shot wound into the knee joint, completely shattering the the knee joint with a severance of the popliteal artery. This patient was transported thirty miles to the hospital and was in a stage of extreme collapse and shock when admitted. The leg was not amputated in this case, due to the extreme shock the patient was in. The popliteal artery, however, was cut down upon and ligated above the point of hemorrhage. Among several members of the family we were not able to find a donor suitable for blood transfusion in this case and it so happened that among the donors we had listed we were not able to locate one until very late in the evening; this accident having occurred on Sunday when most of our known donors could not be reached. Acacia and sodium was used as a substitute for transfusion but the patient expired. I mention this because it points out the fact that every well organized hospital should constantly have donors available in every group for such emergencies. While these emergencies arise very rarely, when they do we are almost helpless without immediate transfusion.

Under the heading of "Complications Recorded and Properly Treated" we believe that very frequently complications are recognized and properly treated, but are not properly recorded on the records. In some cases we find at post that we have not recognized complications and, therefore, they have not been properly treated. If our records do not show complete progress notes and complete data as to date and hour of beginning complications, we do not feel that the patient has had the best post-operative care that was possible.

Causes of death in these 26 cases are as follows:

CAUSES OF DEATH

CAUSES OF DEATH	NO.	PER CENT.
Primary disease or Extension	11	42 %
Pneumonia	2	7½%
Faulty Technique	1	3¾%
Choice of Operation	2	7½%
Post-Operative Hemorrhage	1	3¾%
Pulmonary Embolism	1	3¾%
Cause Unknown	1	3¾%
Bad General Condition, Question of Operation	5	19 %
Cardiac Failure	2	7½%

The mortality in this group of cases is about 3.5%. In a recent analysis covering a total of 1215 operations, our mortality was 5.5%. Included in this group were 13 cases of carcinoma, which died following operation. If we remove these 13 cases, we have a mortality for this group of 4.5%. It is my impression that advanced carcinoma is one of the chief causes for a high mortality rate and I believe this group of cases falls into a classification where we attempt to accomplish some good, knowing that the odds are frequently against us and as long as we so advise the patient, or the immediate relatives of the patient of these facts, we cannot be criticized for mortality in this group. It is possible that the mortality occurring in this group could be markedly reduced if these patients could be brought to us in the early development of the disease, but inasmuch as a large number present themselves as almost a last resort, mortality will remain high under those conditions.

Morbidity is nearly always dependent on the time and choice or election of operation and technique. In thyroid surgery the time of operation that is, before permanent cardiac damage has occurred, will certainly influence our morbidity and the extent or amount of thyroid removed will probably determine whether we have a hypo or hyper following operation, or are fortunate enough to have removed the exact proper amount of thyroid tissue. It has seemed to me that since we are adopting the plan of removing almost all of the thyroid gland that we are seeing far too many cases of hypothyroidism following thyroidectomy and it has been my experience that we are seeing more cases of hypoparathyroidism due to injury in the removal or destruction of the blood supply to the parathyroids.

In gall bladder disease morbidity may also be determined by the time of the operation and a choice of cholecystectomy or cholecystotomy and the exploration of the common duct for gall stones. Our own experience is that cholecystectomy gives us a much better result than cholecystotomy. We have not been able to determine much difference in the relief of symptoms as related to the duration of the disease from the history obtained. If chronic hepatitis and chronic myocarditis result from long continued infection of the biliary tract, then earlier operation will prevent a portion of our present morbidity.

Technique plays an important part in post-operation morbidity, particularly in the amount of trauma produced in surgery, which frequently results in undue adhesions and the lack of care in peritonealizing raw surfaces. Lack of proper care in the closure of abdominal wounds frequently results in post-operative hernia, which frequently is fully as serious as the preexisting condition.

Mortality and morbidity will be further reduced if we always bear in mind that each case is an individual and that individuals cannot be standardized, but all require special and complete study. While general routine in hospital surgery practice is necessary, it should not give way to the individualization of each case.

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DISCUSSION ON PAPERS OF DRS. PACKARD AND BLACK

Dr. Jabez N. Jackson, Kansas City, Mo.: I think these figures speak for themselves. We are coming down to the point where we are not discussing generalities but our results. These analyses are worth while. I think they also illustrate what I said in my paper that we must take into consideration the physiologic balance of the patient we are operating upon. I think very much can be accomplished by the post-operative care of the patient. If the average intern would carry a stomach tube around his neck and lavage the stomach oftener, we would have fewer deaths. So many men wait on gastric lavage until the patient reaches the stage where nothing can be done. I tell my nurses that there are two types of so-called gastric dilatation, one in which antiperistalsis is still there but peristalsis is gone, and the other where antiperistalsis and peristalsis are both gone, the patient is all blown up and finally dies. I say to the nurse, to always watch the epigastrium and the lower border of the ribs, because sometimes you will find it if you percuss over the ribs. If six hours after operation the patient has either nausea or distention, the stomach should be washed out and we wash it out every three hours until these indications are gone. If you wait twenty-four hours, the patient is blown up, you have a paresis and it will not do any good to wash out the stomach. In many of these cases we can anticipate. In chronic gall bladder cases I give orders for the stomach to be washed out every three hours for the first twelve hours whether there is any dilatation or not; in other words, anticipate these things that increase the mortality.

Dr. John J. Gill, Chicago: The thing I have in mind is on the very limited subject of Cesarean section. I have just been looking over the statistics of one of our general hospitals in Chicago and during the ten years from January, 1922, to January, 1932, 85 Cesarean sections were done with the death of only one mother. She died on the tenth day of pneumonia.

The operations were done by twenty-three different operators. One operator did 18, one 16, one 15, one 8, one 5, one 3, three 2, the other fourteen operators, one each. When Cesarean sections are done by a large number of operators with such excellent results in general hospitals it seems to contradict largely the statistics of the article which appeared in the March, 1932, *Ladies Home Journal* that all women to have babies should go to a strictly lying-in hospital. I hope all physicians will consider that article as detrimental to the medical profession.

Dr. George deTarnowsky, Chicago: Napoleon once said it was a good thing to wash your dirty linen in the family. There is another saying as far as a medical meeting is concerned, that it is a good place to wash your surgical failures in. I think papers like those

of Dr. Packard and Dr. Black should be read at every state meeting. It is only by analyzing work done in the early years, in the formative years and later years that we can pass on something to the succeeding generation. Dr. Black's paper is the one I am particularly interested in because he analyzes facts in cold blood, because he blames himself where blame is due and he blames his colleagues where blame is due them. He is giving a lesson for the future.

I was rather surprised that he reported 54 deaths from peritonitis. I imagine that those 54 cases were done quite a number of years ago when it was a common thing to open the abdomen in the midline, do a ventral suspension, remove a few ovarian cysts, take out the appendix, in other words, a multiplicity of operations. We are getting away from that. We are trying to make the correct diagnoses and to limit our surgery to the actual pathology present.

As regards the reduction of morbidity and mortality in appendicitis I find that there are a few factors which influence them. I find that most young surgeons when they begin do not know how to ligate the meso-appendix in order to include the artery of the meso-appendix. Hardly a month goes by in the Cook County Hospital but some senior intern who has been given permission to do an appendectomy will tell the attending surgeon that the patient has developed a hematoma. Sometimes the patient dies; if he survives it increases the morbidity. Again we find that too much rough surgery is being done; the tissues are not being handled with gentleness. Surgeons seem to lay too much stress on the number of laparotomy pads they introduce around the pathologic site and too little stress on gentle handling. They frequently in the effort to reach the appendix tear through nature's zone of defense.

I want to stress the abuse of laparotomy pads. If it is a case of spreading peritonitis a laparotomy pad is not indicated at all. It can do absolutely no good. Peritonitis is already present. If it is localized peritonitis you have your zone of defense. If you operate inside your zone of defense your laparotomy pad becomes useless. I think the only indication for the use of one laparotomy sponge is where in removing the appendix you run the risk of perforating the appendix and letting a little drop of pus get on your zone of defense. In such a case you are justified in using one laparotomy pad.

It stands to reason that Dr. Black's mortality would be higher than that of the occasional operator. The occasional operator has made his own diagnosis, gets the patient in the hospital within twelve to twenty-four hours, removes the appendix which has no zone of defense. The regular operator gets the desperate cases with abdomen ballooned up and a well marked line of defense. Consequently his mortality is going to be higher than the occasional operator.

I think Dr. Packard's paper is extremely valuable. I think we should bring out these statistics in the different hospitals, thrash things out discuss them in state and local meetings, so the younger men will not have to go through the same mortality rate until they acquire the technic and judgment of the older surgeons.

Dr. Murphy, Dixon: After all, the most important thing in the treatment of acute appendicitis is an operation within the first twelve to twenty-four hours, preferably the former. This will reduce complications, morbidity and mortality to the minimum, and also reduce the period of hospitalization.

In the event that the patient is suffering from some other serious disease, it should receive appropriate treatment, but the operation should not be delayed when there is danger of perforation. For example: if the patient is a diabetic, glucose, insulin and salt solution may be administered in quantities adequate to combat the acidosis before and during the operation. Thereafter, it may be carried on in accordance with the indications for diabetes. Of course, ether and chloroform as a general anesthetic are contra-indicated in diabetics. I have found local anesthesia, plus morphine, supplemented, if necessary, with nitrous oxide and oxygen, or ethylene and oxygen to be satisfactory.

In the advanced stage of the disease, when a large localized abscess has formed and the peritoneal cavity has not been completely walled off to the anterior wall, some barrier should be introduced down to the abscess such as gauze covered with rubber tissue or rubber dam to be left in this postion from five to seven days, preferably the latter. Then the abscess may be drained without fear of contaminating the general peritoneal cavity. An appendectomy should be done after the infection has abated, usually in about two months.

In conclusion, I am in full agreement with all Doctor Black and especially Doctor Packard said in regard to careful technique and physiologic surgery, as the patient is always a medical as well as a surgical problem.

Dr. R. K. Packard, Chicago (closing): One of the conditions we have to meet in the ordinary run of surgery is to have some one call up and say, "I am bringing in an acute appendicitis," or "I am sending in a patient with appendicitis and gallstones to be operated on tomorrow." That constitutes quite a problem on the part of the family because they may have been told that the patient will be operated on tomorrow or right away. What we have to do is to develop a diplomatic technic for postponing operation until we have had opportunity to study the case. Sometimes that requires as much knowledge as surgical ability in handling the case.

I did not attempt to go into the pre-operative management of any particular group of cases or the post-operative management. I took it for granted that we should know that, for that information is available. It is only by careful study that we can be posted on those lines. I think a good many of the errors that we make are errors of omission; they are not errors of ignorance. We know; sometimes we hurry; sometimes we rush things along unduly; sometimes we get an ego about surgery. I remember being in Dr. Crile's clinic when he had operated on 600 or 700 goiter cases without a death and then he had a death. He said, "this death is the result of my being cocky.

I thought I would have no more thyroid deaths and we operated on this patient in one stage." With the judgment he had the patient should have been operated on in two stages, so we develop a rather cocky spirit and then we have something strike us right on the head and bring us down to earth again.

Dr. C. E. Black, Jacksonville (closing the discussion): I am certainly very grateful to these men for their discussion. especially Dr. Jackson. I listed abdominal distention, abdominal rigidity, frank albumin, numerous casts and acetone and diacetic in the urine and low kidney function as the serious danger signals. I did not mean to imply that every one of these factors is present in every case, but if you have the major portion of them present in any case it is well to beware. Reduction of the water balance and chloride balance is the condition which must be overcome if these cases are to be saved for successful surgery. Back of it all is this idea, if we can induce a large number of hospitals to make such an inventory of their work over a period as I have indicated and put these together, we could find out what we are really doing. Hospitals make an audit of business accounts, why should they not make an audit of medical accounts and surgical accounts?

SOCIALIZED MEDICINE IN PRESENT-DAY AMERICA*

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In selecting "Socialized Medicine in Present-Day America" as the subject of my talk, I have been guided by the importance of this question to you as well as to the medical profession. You are naturally concerned in any system which would alter the quality of medical service or its cost to you. So many drastic proposals have been put forth recently for changes in our present method of administering and distributing medical care, that I thought you would be interested to know just what these changes would mean to you.

In order to avoid confusion and misunderstanding, let me say at the outset that I am not going to discuss the merits or demerits of socialism in general. I am not going to talk of state medicine under a socialized form of government. These are totally separate questions with which we are not for the present concerned. In my talk to you I shall limit myself entirely to the consequences of socialized medicine in a nation like our own. You will appreciate how little this has to do with the general question of socialism when I tell you that many of the people who are advocating state medicine for America are staunch adherents of the capitalistic system,—are, in fact, representatives of the small group that has made millions through capitalism; while the opponents of medical socialism include many who believe firmly that a new economic deal is necessary before our present troubles can be brought to an end.

Many of you may be wondering exactly what I mean when I speak of state medicine. Let me explain to you that state medicine can come to a community in one of two forms. The government may enter into the practice of medicine directly by expanding its public health service and extending the latter's activities to include the treatment of individual citizens for a variety of conditions; or it may sponsor a plan for compulsory health insurance.

In either case, in the opinion of the great majority of the physicians of the country, the result would be a lowering of the standards of medical care. You might get more service, from the viewpoint of quantity, but it would be poorer service; and we doctors feel that what the people of this country need and want is not so much more treatment as better treatment.

I do not think it necessary to discuss in detail the consequences of direct governmental participation in the practice of medicine. For one thing, this form of medical socialization has not as many advocates as compulsory health insurance. For another, its inherent evils are apparent even to people who have not made a profound study of the question. Americans are unfortunately all too familiar with the stultifying and corrupting influence of politics on most forms of public service. I am sure that very few of you would care to see this influence at work on the doctor who enters your home and deals with the most intimate and vital problems of your life.

The Seabury investigation revealed a few of the stupid and dishonest practices to which a little group of physicians were not ashamed to stoop once they became steeped in the debasing atmosphere of political experience. Believe me, politics is no fit chaperon for medicine, which, even more than Caesar's wife, must be above suspicion.

*Delivered over Station WABC on January 2, 1932.

Even if politics were not as corrupt and inefficient as they indubitably are, there are many difficulties in the way of socializing medicine under our present form of government. In no field is success more dependent upon individual talent and personal quality than in the practice of medicine; in no field are personal contact and understanding more necessary. These indispensable conditions are impossible under a bureaucracy, no matter how well administered the latter may be.

It would be far easier to socialize large, highly organized industries like the railroads, the telephone and telegraph services, the distribution of light and power, than an unorganized field like medical practice, where the work is necessarily highly individualistic. In the former case, the organization remains the same; the conditions of employment of the actual workers are the same: there is merely a transfer of ownership. In socializing medicine, you alter the basic structure of the profession, revise the status of the workers and attempt to establish bureaucratic control of a sphere of activity which is essentially dependent upon individual training, judgment and ability.

This is not merely my personal opinion. The Commission on Medical Education, headed by President Lowell of Harvard, made a study of the conditions of medical education and medical practice which extended over eight years. Upon the conclusion of its survey, it disputed the alleged advantages of group practice in the following words, "No scheme of organization or group responsibility can substitute for the priceless, discriminating and sympathetic judgment of the competent and conscientious physician." This invaluable attribute must be surrendered when practice ceases to be personal and becomes the concern of the state.

As a rule, when people speak of state medicine, they are not referring to the direct practice of medicine by doctors in the government employ but to compulsory health insurance. Under this system, all persons within specified income groups are required by law to insure themselves against sickness. The worker pays part of the premium and the balance is made up by the employer and the state. Theoretically this sounds very enlightened and liberal; but what really happens?

We need not speculate in this topic. Compulsory health insurance has been in force in England, Germany and Austria for a number of years. What is the condition of medical practice, and what are the standards of medical care, in those countries?

The answer is no argument for compulsory health insurance. In order to keep the costs of insurance within the means of the contributing parties the doctor is so poorly paid that he must see about fifty patients a day to earn the most modest livelihood. Naturally he cannot examine each patient thoroughly and administer careful treatment; and the practice of medicine becomes a matter of handing out stock prescriptions.

There is no time for postgraduate study to keep abreast of new discoveries and new ideas; and, after a few years of this stultifying grind, the doctor becomes incapable of the accurate diagnosis and well-judged treatment for which, in any case, he cannot spare the time. The enervating effect of this type of practice is evidenced by the paucity of worthwhile research which has come forth from panel physicians in Europe in the years in which compulsory health insurance has been in force.

The poor here, who apply to free dispensaries, receive far better medical care than the so-called beneficiaries of compulsory health insurance in Europe. Not only has there been no drop in the death rate in the countries that have adopted this theory; but there has actually been an increase in the number of working days lost each year because of sickness. Where, then, are the benefits claimed for this system?

Our need is not for more medical care, but for better care—and mass production is not the solution of this problem. We have seen super-organization fail in industry, where tangible, standardized products were the commodities dealt with. It is more surely doomed where the mysterious human organism is the subject. No two human beings are alike; and every illness is a separate problem, to be solved by individual observation and judgment rather than fixed rule. The human body is not a motor-car—and large-scale industrial methods will not heal its ills.

Successful healing does not depend upon efficient organization but upon the training, intelligence and interest of the individual healer. The central figure in any system of medical practice is the doctor; and he cannot discharge his duties properly under a system which deadens initiative and places a premium on quantity rather than skill. When economic stress forces a physician to see fifty or sixty patients a day, no one of those patients can receive adequate care. When bureaucracy imposes a thousand clerical restrictions upon a physician, research and intellectual curiosity do not flourish.

In order to have an adequate system of medical care, the economic, intellectual and social conditions of practice must be such as to attract a desirable type of student to the medical schools; the standard of professional education set by law and custom must be high; and the remuneration for services rendered must be sufficient to permit the physician to apply his professional knowledge fully and thoughtfully to each case, and to allow him to add to that knowledge, by post-graduate study and attendance at medical meetings, throughout his career. The conditions imposed on the doctor by compulsory health insurance are a negation of these fundamental principles.

Our society, rightly or wrongly, is so organized that the profit element is the motivating force of human conduct. You cannot expect the doctor, who must pay rent and taxes, buy food and clothing and educate his children under this system, to ignore or be insensitive to the basic forces in the community in which he lives. The physician must earn enough to repay him for his long and expensive training, to purchase the costly and elaborate equipment required for modern practice and to maintain a standard of living comparable to that of other professional groups. In medicine, as in every other field in present-day America, you get what you pay for. Good medical service is impossible when the physician's income is reduced to the point where he must sacrifice skill, judgment and initiative to the demands of mass production and political control.

Present economic conditions have given an unprecedented impetus to demagogues and theorists. Every day brings forth new panaceas for our troubles. We must not permit ourselves to be stampeded into accepting remedies that may prove worse than our present ills.

There are undoubtedly inefficiencies and inequalities in the existing method of distributing medical service but they do not require basic changes in the structure of medical practice to be remedied. Compulsory health insurance has given the working classes in Europe a poorer level of medical care than the indigent receive in America. It has worked an injustice on the medical profession that is only paralleled by its injustice to the sick and ailing to whom it offers an inadequate, inferior grade of service.

I believe that the lay public is a vitally interested party to any project for destroying the existing system of medical practice and substituting therefor a scheme that has proven its basic fallacy and weakness in the countries in which it has been tried. The doctor may suffer under compulsory health insurance; but in the last run it is the people that suffer most.

51 West 73rd Street.

SURGICAL RELIEF OF PAIN IN PERIPHERAL CIRCULATORY DISEASES OF THE FEET*

SAMUEL PERLOW, M.D.
CHICAGO

Relief of pain is one of the major problems in the treatment of peripheral circulatory disturbances of the lower extremities. In the mild cases in which there is pain on walking only and in those in which there is slight continual pain, resting the extremities in the dependent position and the use of mild sedatives is sufficient. The pain in such cases usually disappears as the collateral circulation is improved by appropriate general and local measures.[1]

However, in cases with ulceration or gangrene of the toes more radical measures for its relief are necessary. The pain is of a severe gnawing character, constantly present, and with frequent agonizing exacerbations. It does not permit the sufferer to rest or sleep. Very few patients are willing or able to bear the pain during the months required for a sufficient

*From the Peripheral Circulatory Clinic of Michael Reese Hospital and the Department of Anatomy, Northwestern University Dental School.

collateral circulation to develop under conservative management. Narcotics are of little help. Besides exposing the patient to the danger of addiction they frequently are useless in controlling the pain in the later stages. The pain becomes so unbearable at times that some of the patients will actually beg for an amputation in order to get relief, and until recently amputation was the only recourse of the surgeon.

The present day treatment of occlusive vascular diseases of the extremities is ultra-conservative. We know that in a large proportion of cases if the pain can be controlled while conservative measures are instituted, the ulcers will heal and auto-amputation of gangrenous toes will take place and leave an otherwise intact and useful extremity.

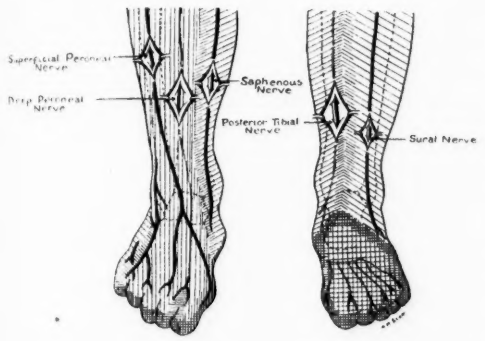

Fig. 1.—The ideal sites to incise the skin for the various nerves are shown. The solid line shows the course of the nerve in the subcutaneous tissue, the dotted line shows the course of the nerve under the fascia. The cross hatching shows the distribution of the nerves to the skin of the foot and leg.

Peripheral nerve block as a surgical means of relieving the pain was introduced first by Silbert in 1922.[2] He reported a series of four cases in which the posterior tibial nerve was injected with alcohol at the internal malleolus. Smithwick and White in 1930[3] reported a series of 11 cases in which the pain was relieved by such means. This procedure allowed the continuation of conservative treatment and effected the saving of six extremities which would have been lost otherwise.

Technic. In order to relieve the pain in such cases the painful area must be accurately outlined and the nerve or nerves that supply it with cutaneous fibres injected with alcohol. To attempt to inject the nerve with alcohol through the skin is a very dangerous procedure, because sloughing of the tissues will result. It is safer to isolate the nerve through a small skin incision. The technic of the operation is simple.[3] Under local anethesia with 1% procaine solution the nerve desired is isolated above the ankle and from ½ to 2 cc. of 95% alcohol is injected directly into the trunk. The nerve is then dropped back into place and the wound closed with fine catgut or silk. Care must be taken to protect the surrounding tissues from the alcohol. Because of the poor healing power of the tissues with which one is dealing, it is absolutely essential to isolate the nerve trunk high up above the ankle and to work through as small an incision (1″-1½″) and with as little injury to the tissues as possible. This requires a very detailed knowledge of the course of the various nerves and their relations to the surrounding tissues, especially to the adjacent blood vessels, as injury to the already inflamed artery may easily swing the course of events from cure to gangrene.

Nerves. There are five nerves which are sensory to the foot, i. e., the posterior tibial nerve which is sensory to the plantar surface of the foot and heel and to the dorsal surface of the distal phalanges; the sural nerve which is sensory to a triangular area on the lateral surface of the foot extending from the ankle towards the 5th toe; the saphenous nerve which is sensory to a similar area on the medial side of the foot; the superficial peroneal nerve which supplies the dorsum of the foot; and the deep peroneal nerve which is sensory to a triangular area between the 1st and 2nd toes.

1. *The posterior tibial* nerve is the one which it is most often necessary to inject for relief of pain. It is about ¼″ in diameter and is inclosed in a sheath along with the posterior tibial vessels. In the distal third of the leg it lies lateral to the vessels between the flexor digitorum longus and the flexor hallucis longus muscles and on the tibialis posterior muscle. It divides under the laciniate ligament into the calcaneal, and the medial and lateral plantar nerves.

The nerve trunk is isolated best 2″ to 3″ above the medial malleolus along the medial

edge of the tendo calcaneous. The tendo calcaneous and the belly of the flexor hallucis longus muscle should be retracted laterally and the tendon of the flexor digitorum longus muscle should be retracted medially. The sheath containing the nerve and the vessels will be found about 1″ deep, the vessels being medial and the nerve lateral.

2. *The sural* nerve is formed on the tendo calcaneous at the junction of the lower and middle thirds of the leg by the anastamosis of the medial sural cutaneous nerve and the anastamosing peroneal branch of the lateral sural cutaneous nerve. It passes inferiorly with the lesser saphenous vein along the lateral edge of the tendo calcaneous behind the lateral malleolus to its distribution on the lateral surface of the foot.

The nerve can be isolated through a small incision about 2″-3″ above and behind the lateral malleolus along the lateral edge of the tendo calcaneous. It lies lateral and slightly anterior to the vein.

3. *The Saphenous* nerve in the lower part of the leg, lies medial to the crest of the tibia just behind the greater saphenous vein. It passes anterior to the medial malleolus to supply a triangular area on the medial surface of the foot and heel. It can be isolated through an incision about 3″ above the medial malleolus and 1″ medial ot the crest of the tibia.

4. *The superficial peroneal* nerve, after giving off its motor fibers high up, becomes entirely sensory at the junction of the lower and middle thirds of the leg. At this point the nerve trunk lies under the deep fascia on the extensor digitorum longus muscle about 1″-1½″ lateral to the crest of the tibia. Its course is somewhat in the medial and anterior direction. Half of the nerve fibers pierce the fascia here and become the medial dorsal cutaneous nerve to the foot, which courses medially and anteriorly across the ankle to supply the skin of the medial half of the dorsum of the foot and the 1st, 2nd and part of the 3rd toes. The remaining fibers of the superficial peroneal nerve pierce the fascia somewhat lower down, about 2″ above the lateral malleolus on the anterior surface of the leg, and become the intermediate dorsal cutaneous nerve to the foot. It passes anterior to the lateral malleolus, anastamoses with the sural nerve and supplies the lateral half of the dorsum of the foot and the 3rd, the 4th, and the 5th toes.

To isolate the nerve a longitudinal incision should be made 1″ lateral to the crest of the tibia at the junction of the middle and lower thirds of the leg. The medial dorsal cutaneous nerve to the foot will be found under the superficial fascia on the deep fascia. The remaining fibers (intermediate dorsal cutaneous nerve to the foot) lie under the deep fascia and can be found very easily by incising that membrane. If it is desired to isolate the latter fibers alone, it can be done without incising the deep fascia if the incision is made lower down, about 2″ above and just anterior to the lateral malleolus.

5. *The deep peroneal* nerve is sensory to the skin between the 1st and 2nd toes. In the lower part of the leg it lies between the tibialis anterior muscle on its medial side and the extensor digitorum longus and the extensor hallucis muscles laterally. Just above the ankle the nerve lies behind the tendon of the tibialis anterior and between the tibia medially and the extensor hallucis and the extensor digitorum muscles laterally.

It is isolated best through a vertical incision 2″ above the medial malleolus along the crest of the tibia. The tendon of the tibialis anterior muscle must be raised and retracted laterally. The nerve and the vessels will be found about 1″ deep lying on the interosseous membrane close to the bone. The nerve lies anterior to the artery and vein.

CASE REPORTS

Case 1. M.L., male, aged 32 years. Thrombo-angiitis obliterans of both lower extremities with suppurating lesion under nail of the right big toe. There was severe pain in the soles of both feet which was severe enough to prevent rest and sleep. It was not relieved by the usual therapy including typhoid vaccine intravenously. Blocking both tibial nerves with 1% procaine relieved the pain in both instances and resulted in a rise in temperature of the big toe of 2°C. on the right side and 0.6°C. on the left side. Alcohol nerve blocks were performed on both posterior tibial nerves. There was complete relief of pain and anesthesia of the soles for 4 months. The rise in temperature was 3.2°C. on the right side and 2.8° C. on the left side. The suppurating lesion of the right big toe healed within 1 week after the nerve block. Conservative management was continued with typhoid vaccine with very excellent results.

Case 2. B.F., male, aged 58 years. Dry gangrene

of the left 2nd toe on an arteriosclerotic basis with severe pain in the area supplied by the posterior tibial and the deep peroneal nerves. Alcohol block of both nerves was performed under local anesthesia. There was complete relief of pain and a rise in temperature of the sole of the foot of 1.8°C. A small ulcer developed at the upper edge of the wound made for the deep peroneal nerve. Auto-amputation of the gangrenous toe was taking place when the patient died of a heart condition.

Case 3. M.S., male, aged 24 years. Bilateral thrombo-angiitis obliterans. There was a large sloughing ulcer on the right foot, following an amputation of the right 5th toe, which gave the patient no rest and was so severe that he asked for an amputation of the leg. The right sural, the posterior tibial, and the superficial peroneal nerves were blocked with alcohol. The pain was relieved completely. There was a rise in temperature of 2.6°C. on the sole and 3.2°C. on the dorsum of the foot. The patient continued on conservative management and the ulcer began to heal.

Case 4. M.C., male, aged 35 years. Thrombo-angiitis obliterans with impending gangrene of the right 5th toe. The toe was cyanotic and there were two large ulcers on the 5th toe and one on the 1st. The pain was very severe. A course of typhoid vaccine, diathermy, etc., did not relieve the pain, heal the ulcers or improve the beginning gangrene. Procaine block of the posterior tibial nerve caused relief of most of the pain and a rise in temperature of the end of 5th toe of 0.6°C. Alcohol block of the post tibial and sural nerves was performed. There was immediate relief of pain. Within 24 hours the bluish discoloration of the 5th toe was almost gone. The temperature rose 2.2°C. Typhoid vaccine was continued. Within 2 weeks two of the ulcers were healed. The third ulcer, on the 5th toe, has resisted all forms of treatment and is still suppurating at the time of this writing, 4 months after nerve block. The patient has been free from pain throughout this period.

COMMENT

The immediate results of a nerve block are complete anesthesia and relief of pain in the area supplied by that particular nerve. This lasts for 3 to 6 months and permits the continuation of conservative therapy. Besides the relief of pain there is in all cases a permanent vasodilatation and a rise in the temperature of the anesthetized area which may sometimes be as high as 4°C. or more. This is due to the fact that the sympathetic nerve supply is removed from the vessels in the area. The vasodilatation and the rise in temperature vary with the degree of spasticity of the vessels and are very important factors in improving the pregangrenous states and in the healing of ulcer. In one of the cases reported (M. L.) there was healing of a long standing suppurating process of the big toe within one week after the tibial nerve was blocked.

The incisions healed by first intention in all cases but one, a case of arteriosclerotic ischemia in which a small ulcer developed at the upper edge of the wound. There are no serious complications that can result from this procedure. In no case did trophic disturbances develop after the nerve block. Slight muscle paralysis occurs only in those cases in which the deep peroneal and the posterior tibial nerves are blocked. In the case of the deep peroneal nerve, small muscles on the dorsum of the foot which are of no importance in walking are paralyzed. When the posterior tibial nerve is blocked, the small muscles on the plantar surface of the foot, which are of slight use in walking, are paralyzed. In order to prevent atrophy of disuse and flat feet in the latter cases, we have the patients wear soft leather arch supporters and have them massage the muscles daily.

In conclusion, we can state that the alcohol block of peripheral nerves is a logical and safe procedure for the relief of severe pain accompanying ulceration and gangrene of the feet. Besides relieving the pain it is an excellent therapeutic measure.

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ABSENT TREATMENT

A bishop, one night, at an art exhibition, noticed a young man promiscuously hugging and kissing a marble bust of a woman and deriving a great deal of enjoyment out of it. The bishop approached him.

"Young man," said the clergyman, "a good Protestant wouldn't do that."

The young man continued his maneuvres.

"I'm not a Protestant," he answered.

"Well, a good Catholic wouldn't do it."

"I'm not a Catholic."

"A good Jew wouldn't do it either."

"I'm not a Jew."

"Well, then, what are you?" asked the bishop.

"I'm a Christian Scientist and I'm necking my girl in Denver."—Pennsylvania Punch Bowl.

TREATMENT OF GENERAL PARESIS BY TYPHOID VACCINE AND THE ELECTRIC CABINET*

EMIL T. HOVERSON, M.A., M.D.
G. W. MORROW, M.D.
AND
R. O. HAWTHORNE, M.D.
KANKAKEE, ILL.

A. TREATMENT BY TYPHOID VACCINE

The use of typhoid vaccine in the treatment of general paresis was first reported by Kunde, Hale and Gerty[1] in a preliminary report. Their[2] subsequent report showed that of 49 patients so treated, 21 were restored to their former social standing or previous occupation. MacKenzie[3] reported favorably on this method. Paul O'Leary[4] in publishing the results of this form of therapy in 26 cases of neurosyphilis stated that remissions appeared more slowly than when malaria was used. Schelm[5] reported that 5 of 20 patients treated by this method were social recoveries.

The use of typhoid vaccine and arsenicals in the treatment of general paresis was adopted at the Kankakee State Hospital in April, 1929, and is still the chief form of therapy.

During the period from April, 1929, to July, 1932, 124 male patients received a total of 4198 injections of typhoid vaccine. Arsenicals and mercurials followed. The records of these pa-

Form B

KANKAKEE STATE HOSPITAL
NURSING RECORD

Name of Patient:.....Ward:....A350.....

Date:..10-18-32..... Physician:..Dr. Hoverson..... Day of Disease.....

Time of Day	Pulse	Temp.	Resp.	Medicine	Nourishment	Remarks
8:45	76	99[2]	18	Cabinet Treatment	Current on full	
9:15	82	99	20			Cooperative
9:45	88	100[8]	20		Water	Ad lib
10:00	88	101[6]	20			
10:15	88	102[2]	20			
10:30	84	104[6]	20	Current off ½		
10:45	88	104[8]	22			
11:00	90	104[4]	22			
11:15	96	104[4]	22			
11:30	100	104[8]	20			
11:45	96	105[2]	20	Current off entirely		
12:00	100	106[2]	24			
12:15	102	106[4]	28			
12:30	100	106[4]	24			
12:45	100	106[6]	22			
1:00	104	106[4]	20			
1:15	106	106[4]	22			
1:30	108	106[4]	22			
1:45	116	106[2]	24			
2:00	112	105[8]	22			
2:15	108	105[4]	20			
2:30	104	105[2]	20			
2:45	104	104[8]	20	Cabinet removed		
3:00	100	104	20			
3:30	96	103[2]	18			
4:00	86	102[6]	18			
4:30	80	101	18			
5:00	80	99[6]	18			

* From the Kankakee State Hospital.

tients have been studied to ascertain what effects were produced, and hence, the value of this form of treatment. The conclusions are summarized briefly in this report.

Injections were first given every other day but after a few months the vaccine was administered through two injections per week. The reason for this change was that patients lost considerable weight. From April, 1929, to January, 1932, a course of treatment consisted of 18 injections; from January to July, 1932, a course consisted of 16 injections. The completion of each course of typhoid treatment was followed first by eight weekly injections of neosalvarsan, and this in turn by eight weekly injections of some mercurial compound.

All patients received an initial injection of fifty million killed typhoid bacilli. Subsequent doses were always increased, even when no satisfactory temperature response was obtained. Dosages as high as 27 billion killed typhoid bacilli were given. After September, 1931, the maximum dosage of 2.5 billion killed typhoid bacilli was deemed sufficient for best results; since March, 1932, the maximum dosage of 2.5 billion has not been given; it was found if two billion failed to produce satisfactory temperature response, that the desired temperature could frequently be obtained by reverting to the original dose of 50 million, and then again gradually increasing the dosage. In some cases it was never necessary to give a larger dose than 50 million for all 16 injections. Other patients alternated between 50 million and 100 million as the dosage.

In all cases it was desired to raise the temperature to a point between 103.5 degrees and 105 degrees, and to maintain this temperature several hours. To this end all patients were covered with woolen blankets and the temperature could thus be maintained above 103.5 degrees for three hours in most instances.

With some patients it was never possible to produce a satisfactory temperature response. In these cases the treatments were discontinued. In all cases treatments were continued until no further improvements were noted or until definite contraindications appeared.

Results of the Treatments: For the purpose of tabulating the results, the 124 male patients were grouped as follows:

Class 1. Deceased: The patients who died in the course of the disease.

Class 2. Escaped: The patients who escaped and maintaining themselves at large have not been returned to the Institution. Probably in good condition.

Class 3. Improved: Patients who showed consistent improvement are considered in this class. Improvement is judged by the changes, mental and physical, which have occurred. Many of these patients were restless, disturbed, and uncooperative before treatment but became quiet and more cooperative, and are now all employed at some form of occupational therapy, or as ward workers. They are considered good and reliable patients, but in the main not fit for socialization.

Class 4. Progress checked: Patients who showed no improvement, but, on the other hand, whose condition became stationary, namely, no worse.

Class 5. Deteriorated: Those who showed gradual mental and physical deterioration in spite of the treatment.

Class 6. Discontinued patients: Those on whom treatments were discontinued upon the request of relatives, or because of no response to treatment. (Permission was obtained in all cases for treatment from relatives or guardians.)

Class 7. Discharged: Patients first paroled in remission, and later discharged from the institution fit for society and industry.

The 124 male patients with whom this summary is concerned are further divided into groups according to the number of typhoid vaccine injections received.

Group 1. Patients who received no more than 18 injections. The 58 patients were given a total of 797 treatments. The records show the following:

1. Deceased	22	38%
2. Escaped	5	8
3. Improved	10	17.5
4. Progress checked	3	5
5. Deteriorated	1	1.5
6. Discontinued	6	10
7. Discharged	11	20
	58	100

Group 2. Includes patients who, not improving in satisfactory manner under 18 treatments, received more than 18 and less than 37 injections. The 23 patients in this group received a

total of 756 injections. The records show the following:

1. Deceased	3	12%
2. Escaped	1	4
3. Improved	10	48
4. Progress checked	4	16
5. Deteriorated	4	16
6. Discontinued	1	4
7. Discharged	0	0
	23	100

Group 3. Patients who, not improving satisfactorily as yet, received more than 36 and less than 55 injections. These 24 patients received 1176 injections. The records show the following:

1. Deceased	4	17%
2. Escaped	0	0
3. Improved	12	50
4. Progress checked	5	20
5. Deteriorated	0	0
6. Discontinued	1	4
7. Discharged	2	9
	124	100.

Group 4. Patients who for the same reason received more than 54 and less than 73 injections. The eleven patients here received a total of 774 injections. The results are as follows:

1. Deceased	1	10%
2. Escaped	0	0
3. Improved	7	63
4. Progress checked	0	0
5. Deteriorated	1	9
6. Discontinued	1	9
7. Discharged	1	9
	11	100

Group 5. Patients who received more than 72 and less than 91 injections of vaccine. The 8 patients in this group received 695 injections. The records show the following:

1. Deceased	0	0%
2. Escaped	0	0
3. Improved	4	50
4. Progress checked	4	50
5. Deteriorated	0	0
6. Discontinued	0	0
7. Discharged	0	0
	8	100

In the following table the results are summarized regardless of the number of typhoid injections given, and includes the three year period.

1. Deceased	30	24.19%
2. Escaped	6	4.83
3. Improved	43	34.67
4. Progress checked	16	12.91
5. Deteriorated	6	4.83
6. Discontinued	9	7.29
7. Discharged	14	11.29
	124	100.

Of the fourteen patients who improved sufficiently to be paroled, and later discharged, eleven are now self-supporting and useful members of society. We have been unable to locate the remaining three who were discharged, but as a matter of fact they are evidently well enough to be at large.

The Laboratory findings were as follows:

1. In all there was decrease of cell counts in the cerebrospinal fluid.

2. There was no appreciable effect on the Lange Gold Curve.

3. In only two patients was the Wassermann reaction of the cerebrospinal fluid changed from four plus to negative. In only one case was the four plus spinal fluid Wassermann reaction changed to one plus. In the other there was no change. The general findings here are about those reported for other forms of successful treatment.

Conclusions

1. 124 male patients suffering from general paresis were treated with injections of typhoid vaccine combined with arsenicals during the period April, 1929, to July, 1932.

2. 11.29% (14) of the patients treated showed sufficient mental improvement to permit discharge. 5% (6) more ran away and were in condition to live and maintain themselves at large.

3. 13% (16) had the disease checked in its progress and the cases became stationary.

4. 24.19 (30) uninfluenced by treatment died in the natural course of the progressive disease.

5. The most marked mental improvement (9%) occurred on the completion of the first typhoid course. 2.25% (3) later.

6. This survey has demonstrated that typhoid vaccine plus arsenical therapy is of definite value in the treatment of Dementia Paralytica.

7. The results compare favorably with those obtained by other forms of treatment.

8. Other authors report results as good as these when no arsenicals or mercurials were employed in the treatments. We must assert therefore that the vaccine production of fever is the active curative factor in our group.

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B. TREATMENT WITH THE ELECTRIC CABINET

(A Preliminary Report)

It is well known that hyperpyrexia often

produces beneficial results in the treatment of general paresis. The methods by which this hyperpyrexia may be produced are many. A review of the various methods has been made by Neynamm.[1] In 1919 Weichbroat and Jahnel[2] showed that rabbits infected with syphilitic scrotal chancres got well more readily when they were placed in a heated chamber. In 1930 Kahler and Knollmeyer[3] produced hyperpyrexia by subjecting patients afflicted with general paresis to an incandescent lamp bath from one to two hours. They reported marked clinical improvement. Although there are many reports in the literature, as yet we have been unable to find any article describing our method of treatment.

At the Kankakee State Hospital it was desired to produce a high temperature and to maintain such a temperature for a long time with two main considerations. The first consideration was the ease with which the treatment might be conducted compatible with the patient's comfort, and the second consideration was that of financial expenditure.

The use of an electric cabinet furnishing the source of external heat seemed to be the answer to both points. Accordingly experiments were conducted which resulted in the adoption of a specially constructed electric cabinet. This cabinet was fabricated and constructed in the Sheet Metal Department of the Kankakee State Hospital at a cost of about $35.00.

The cabinet is constructed of 24 gauge galvanized iron. The outside dimensions of the cabinet are: length, 60 inches, width, 28 inches, and the center height is 26 inches. The center inside height is 24 inches, and the sides are vertical for a height of 14 inches, and then curved gradually to the center. One end of the cabinet is closed by a galvanized iron end section "double-sealed" to the main body of the cabinet. This provides additional construction strength and also aids in conserving the heat generated. The other end of the cabinet is open and has ¼ inch rod rolled into the outside of the cabinet. This is to provide the proper stiffness to maintain the proper shape to the cabinet. This end is so arranged that the blanket draped around the neck of the patient may be fastened, by means of clamps, attached to this curved rod.

For the sake of smoothness and strength the bottoms of the sides and end are rolled inwards in a one inch roll. Inside of the frame are three grooved wooden ribs which follow the curve of the cabinet. The end ribs are placed 10.5 inches from the ends of the cabinet, and the center rib is 19.5 inches from each end rib. Wires insulated by asbestos are placed in the grooved ribs and lead to the electric sockets which are located on the sides of each rib. Four such sockets occur on each side of the ribs, giving a total of eight lights per rib and a total of 24 lights. The electric wires are led into each rib through a 1-inch opening located at the top of each rib. Each of the holes has a metal fitting. The lights are placed in a series of 12 lights each, which permits the use of a greater amount of heat in producing the desired temperature, and of a lesser amount of heat, to maintain a given temperature with comfort to the patient. The current used is a 220 D. C. The bulbs are each of 30 Watts. The bulbs are shielded by a heavy wire netting attached to the frame and wooden rib. The lights are controlled by two switches on the outside of the cabinet, one for each series of lights.

A cabinet so constructed can be placed in

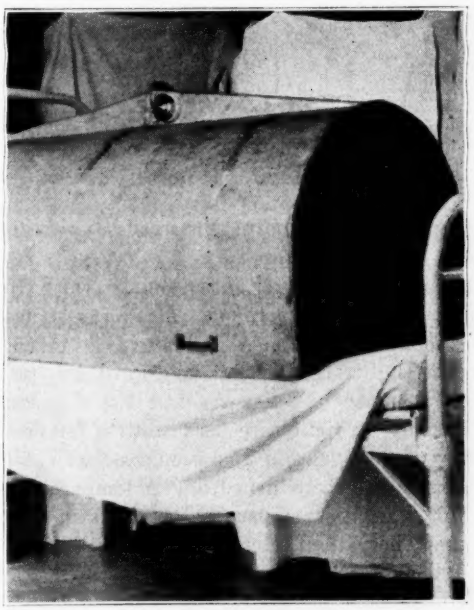

Fig. 1. Cabinet in position.

an ordinary hospital bed. Figure 1 shows the cabinet in position on the bed.

The bed is prepared by first placing a rubber sheet on the mattress, and over this is laid a cotton sheet. The patient unclothed and covered with a cotton sheet is placed on the bed. The cabinet is put in position over him and a blanket is draped over the open end around the patient's neck. Then several thicknesses of woolen blankets are laid over the cabinet.

Fig. 2. Patient in cabinet.

Figure 2 shows the patient ready for treatment. The 24 lights are now turned on. Axillary temperatures are taken every 15 minutes. If any thermometer reading seems questionable a rectal temperature is taken. The 24 lights remain burning until the patient's temperature has reached 104 degrees. Then only 12 lights are used until a temperature of 105 degrees has been reached. All the lights are then turned off. A temperature of 103.5 degrees is usually obtained in two hours. The patient's temperature usually rises to 106 degrees and remains at this level for about one hour. (This is true only in the case of cooperative patients.)

When the temperature begins to drop from 104.5 degrees, 12 lights are turned on and kept on until the temperature again starts to rise. This procedure may be repeated many times. Our procedure has been to keep the temperature over 105 degrees and under 106 degrees for three to five hours. Figure 3 shows the treatment in progress.

At first the patients were placed unclothed in the cabinet, without a sheet between them and the lights. In these cases a loss of weight

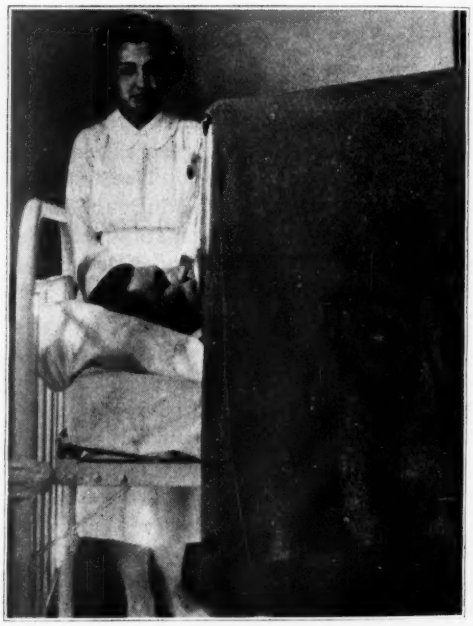

Fig. 3. Treatment in progress.

of five pounds was not uncommon. When a sheet was placed over the patient, the usual loss of weight was about one pound. The loss of weight was regained the following day. In all cases, the patient was urged to drink water. Sometimes as much as six liters was consumed. The average of about three liters was consumed as a rule.

At first, temperatures of 104 to 105 degrees were obtained, but no attempt was made to maintain this temperature for any length of time. As no ill effects were noted, the higher temperatures were maintained for longer periods of time. As the work progressed it was found possible to maintain a high temperature

for over five hours with no ill effects to the patient.

At the completion of each treatment, the temperature was allowed to gradually fall. When it reached 102 degrees the patient was removed from the cabinet and placed in a dry bed.

A treatment given on October 18, 1932, gave the following temperature curve:

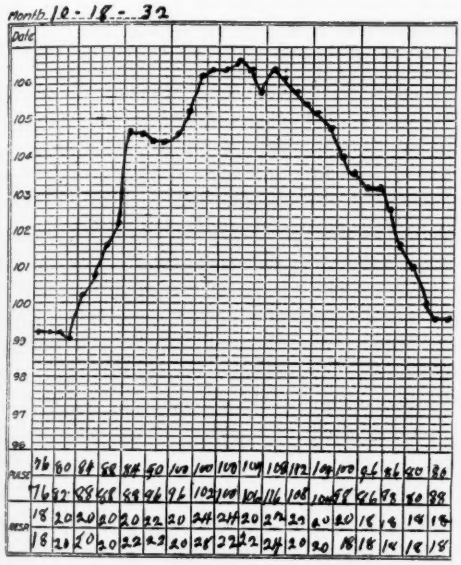

Fig. 4. Temperature chart.

The patients who had been treated by this method are all males, between the ages of twenty-nine and fifty-four. Thirty-two patients, representing all the different body types, have received a total of 109 treatments. Some have been given as many as eight while others have received only one treatment. In the short time that this method of treatment has been used definite beneficial effects have been noted. As yet no patient has improved sufficiently to warrant his discharge.

The following table shows the number of treatments given each patient and the patient's response. The patients are divided into three groups.

Group One: Marked improvement—gain in weight — clean — co-operative—more mentally alert—work well without close supervision.

Group Two: Improved in that they are now more cooperative, cleaner and help in the ward work under supervision.

Group Three: No improvement.

The following table shows the number of treatments given to each patient in each group.

Group One:

Case number.	No. of treatments.	Result.
1	5	Marked improvement
2	3	" "
3	5	" "
4	6	" "
5	5	" "
6	8	" "
7	3	" "
8	2	" "
9	4	" "
10	7	" "
11	2	" "

The average number of treatments given per patient in this group is 4.5.

Group Two:

Case number.	No. of treatments.	Result
12	5	Improved
13	3	"
14	4	"
15	4	"
16	2	"
17	2	"
18	3	"
19	2	"
20	2	"
21	6	"
22	3	"
23	1	"

The average number of treatments given per patient in this group is 3.0.

Group Three:

Case number.	No. of treatments.	Result.
24	3	No improvement
25	4	" "
26	4	" "
27	3	" "
28	1	" "
29	2	" "
30	3	" "
31	1	" "
32	1	" "

The average number of treatments given per patient in this group is 2.4.

Since the average is about equal to the mean, the average is used in this preliminary report. The averages show a close correlation between the number of treatments, or the number of hours that a high temperature was maintained, and the clinical results.

CONCLUSIONS

1. The electric cabinet offers a safe and efficient means of maintaining a hyperpyrexia.

2. There is a close correlation between the number of hours that a high temperature is maintained and the clinical results obtained.

3. In due time a further report will be made.

4. The treatment as described is carried out without subjecting the patient to any

real high external heat. The highest temperature recorded in the cabinet itself (in the center, and about four inches above the patient) was 126 degrees F. In the course of the usual treatment the temperature of the air about the patient ranges from 120 degrees to 126 degrees Fahrenheit.

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THE USE OF CONVALESCENT SERUM FOR THE PREVENTION AND ATTENUATION OF MEASLES*

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A center for the preparation and distribution of human convalescent serum for infantile paralysis was established at Chicago in 1930. Since this disease is a seasonal one and the collection and preparation of convalescent poliomyelitis serum occupies only several months of the year, the rest of the time was utilized for the preparing of other human convalescent serums that are considered effective either in prophylaxis or in therapy. This addition to the functions of the poliomyelitis serum center did not interfere with the efficiency of the organization because the contagious diseases for which serum was prepared do not coincide in their seasonal occurrence with that of anterior poliomyelitis.

It has been found relatively difficult to obtain donors for convalescent measles serum. Every available means was used to secure these donors, a ready source being the convalescing patients at the Municipal Contagious and Cook County Contagious Hospitals, the authorities of these institutions cooperating with us to the fullest extent. The blood collected at these institutions, however, was inadequate to supply the need.

The Chicago Board of Health generously placed at our disposal their daily records of measles cases, reported and confirmed. After the isolation period had ended, letters were sent to the adult patients, and these letters were followed by telephone calls. Both letter and call explained our purpose, and emphasized the need and usefulness of convalescent measles serum. Most of the measles serum was obtained in this way, although this caused a delay between defervescence and the collection of blood, and in many instances the blood was not drawn until a month or more had elapsed. Occasionally individuals furnished blood a second time, within three weeks, and since a maximum of only 250 cc. was taken, we felt this was a safe procedure when the hemoglobin and blood count were normal. This was done only when the supply had been greatly depleted and demands for serum were frequent and urgent. Fifty per cent. of the blood we obtained was drawn during convalescence, but the remainder was obtained at a later period. The samples of serum were pooled so that the potency of the fresh convalescent serum would not be greatly diminished by dilution with the serum from the older cases.

The control of epidemics of measles has been a subject of great interest and effort with disappointing results. Sanitary measures employed in other epidemic diseases have been almost futile when applied in measles.

The isolation of organisms claimed to be the etiologic agents of the disease has been reported [1 and 2] and also the preparation and use of sheep serum[3] and an antitoxin[4] for prophylaxis. Some observers, however, consider these animal serums of questionable value, and their efficacy still to be proved. Another sheep serum prepared from the virus of measles[6] has also had but indifferent success and the danger of a serum reaction[5] is an undesirable feature.

Since the first publication[7] on the use of human convalescent serum in measles prophylaxis, there have been numerous reports in the literature upon the effectiveness of this method in either preventing or modifying the disease. With only a rare dissenting report,[8] there has accumulated a mass of literature affirming the successful prophylactic use of measles convalescent serum.[9] There is considerable variation in the success of complete protection obtained, a variation from 48% to 97%. However, when the instances of attenua-

*From the Samuel Deutsch Convalescent Serum Center of the Michael Reese Hospital, Chicago.

tion of measles are included in the favorable results, there is a consistent uniformity of success in over 90% of cases.

Despite some adverse opinion,[10] many favorable reports[11] have also appeared on the use of normal adult serum and of whole blood as an effective and readily accessible substitute for convalescent serum to be used for the prevention of measles. The number, both of completely protected and modified cases, is distinctly lower than for individuals given serum from recent convalescents. Pooled normal adult serum seems to be more potent than whole blood. The adult serum seems relatively effective for prophylaxis in doses of 20-40 cc. and the whole blood in doses of 40-80 cc.

After a careful analysis of the literature, it became obvious that certain principles had been established regarding convalescent serum prophylaxis of measles. These principles of prophylaxis, clearly presented by A. C. Silverman,[12] are briefly as follows: 1. If possible, convalescent serum should be collected between 7-10 days after defervescence. 2. To obtain complete protection from the incubating infection (but only temporary immunity from subsequent exposures) the serum should be given within 5 days after exposure. 3. If given during the interval between 6th and 9th days after exposure, the serum will most likely cause a modification of the measles, such an attack, even though modified, being followed by an active and probably lasting immunity. 4. Nine days or longer after exposure there is little likelihood that the serum, except possibly in enormous doses, will have any influence on the course of the disease. 5. No less than 3 cc. of serum should be given to a child 3 years or less, with addition of 0.5 cc. for each additional 6 months of age. 6. Although such dosage should prove adequate, other factors must be considered which might necessitate the use of more serum. These factors are intimate and continuous contact, weight of the patient, and physical condition. A debilitated child, or a child suffering from some other infection should receive a larger dose, for, in all probability the patient's resistance is lowered. 7. Pooled convalescent serum should be used, because serum from individual patients may contain a low titer of immune bodies. 8. The dosage should be increased if the serum has not been used within 9 months of preparation for there is diminution in the potency after this period. 9. Because of the great incidence of complications with the resultant high mortality in infants, all children under 3 years of age should be given serum early enough to cause complete protection or modification. Older children, who are sick or in poor physical condition should receive serum early for the same reason. 10. It is advisable, in healthy children, to allow the development of an attenuated form of measles with its accompanying active immunity rather than produce complete protection. However, in a small percentage of cases, the serum fails to cause any modification, especially when given in the 6-9 day post-exposure period. Because of this percentage of failure, serum should be administered early and in adequate amounts to sick or debilitated children and infants to confer complete protection, and the modified disease with its subsequent active immunization allowed to develop should the child be exposed at a later and more favorable period.

There has been no general notification of the availability of the serum to physicians by the Samuel Deutsch Serum Center because of the limited supply. The hospitals were acquainted with the source of serum and during the season various institutions called upon the Center for convalescent serum. The remainder was distributed to physicians who made requests for use in private patients. They usually phoned the Serum Center, and the amount of serum and the optimum time for injection were discussed. Usually, a member of the family obtained the serum and the private physician administered it in the home. The policy established at the Serum Center was distribution depending on supply. When there was sufficient serum on hand, all requests were granted. However, when the supply was diminished, distribution of convalescent serum was limited to children under 3 years of age and over 6 months (unless the mother gave no history of measles) and to children, sick or in poor physical condition. The remainder were supplied with pooled adult normal serum, or whole parental blood was advised. The serum was prepared in 5 and 7.5 cc. doses, using 5 cc. as a mini-

mum dose, and 7.5 cc. when condition or age of the patient required a larger dose. Pooled adult serum was supplied in doses of 20 cc. When serum was distributed to hospital contacts, follow up letters were sent after a suitable interval to determine the results. The serum used in private cases was followed by a questionnaire card mailed to the physicians who had employed the serum.

During the year of 1931 and the first half

CHART 1. SUMMARY OF CASES IMMUNIZED WITH MEASLES CONVALESCENT SERUM

Day after Contact of Serum Administration	No Disease				Modified Measles				Moderate Measles*			Severe Measles*		
	0-3 yrs.	3-10 yrs.	10+ yrs.	Age?	0-3 yrs.	3-10 yrs.	10+ yrs.	Age?	0-3 yrs.	3-10 yrs.	10+ yrs.	0-3 yrs.	3-10 yrs.	10+ yrs.
1	15	2			3	1								
2	20	4	1		7	4				4 yrs. 5 cc. 14 days			5 yrs. 2.5 cc. 7 days	
3	22	23	2		7	2			3 yrs. 5 cc. 18 days			8 mos. 5 cc. 15 days		
4	20	16	1	1	12	12	1		3 yrs. 2.5 cc. 18 days	5 yrs. 7.5 cc. 14 days				
5	9	8			13	5			14 mos. 5 cc. 14 days	5 yrs. 5 cc. 00 days				
6	5	6			5	1				9 yrs. 2.5 cc. 10 days	15 yrs. 5 cc. 11 days			
7	3	2			5	2								
8	1				1	2				5 yrs. 5 cc. 13 days				12 yrs. 5 cc. 10 days
9										4 yrs. 5 cc. 15 days			6 yrs. 2.5 cc. 9 days	
10	1	1			1	2		1	2 yrs. 5 cc. 12 days 3 yrs. 5 cc. 14 days 3 yrs. 5 cc. 13 days					
11						1							6 yrs. 5 cc. 14 days	
12		1			2									
13									2 yrs. 5 cc. 17 days					
14													6 yrs. 5 cc. 14 days	
Not Known	3	1	2	2	2	1		1	7 mos. 5 cc. ♯					
Total	99	64	6	3	58	33	1	2	8	6	1	1	4	1
	172				94				15			6		
%	60				33				5			2		

*Each case given with age of patient, dosage of serum and incubation period.

♯Serum was administered the day before the rash appeared.

of 1932 convalescent serum was distributed for 505 cases. Of these, reports were received on 287 cases. The private physicians were very cooperative and of great assistance in determining and recording the results. Hospital cases formed the greatest number upon which no data could be obtained. The cause of this was unavoidable since most of these exposed and immunized children were not kept under observation, but were sent home under quarantine and these cases could not be followed.

Although an attempt was made to establish 5 cc. as a minimum dose, it was found that physicians at times divided the dose between two children. There were 16 such instances. The remaining children were given 5 to 7.5 cc. as advised. Chart 1 is a summary of the results obtained. It can be seen that 172 or 60% were completely protected and 94 or 33% developed attenuated measles. Consequently, 93% were afforded protection. It is likely that a higher percentage of complete protection could have been achieved but in many instances, a modified measles with an active immunity was the result desired. There were some children who though receiving the serum relatively and intentionally late, were still completely protected, and it is possible that they were not exposed to measles, or were immune.

Fifteen or 5% had a relatively moderate form of measles. Of these 15, three, though given the serum before eight days after exposure, were given an insufficient amount. Six received the serum quite late, and in the remaining six, the serum though given in time and in adequate dose, failed to protect.

Six cases or 2% developed characteristic severe measles. Four received the serum in the catarrhal or early eruptive period. Of the other two cases, one received only 2.5 cc. and developed measles presumably 7 days after contact and 5 days after serum administration. It is likely that this case had unwittingly been exposed before the known contact and the small dose of serum was really given on the eighth or ninth day after exposure rather than the recorded second day. Only one case receiving adequate serum early enough to produce modification, derived no benefit.

It is seen that three cases received serum after the ninth day without developing measles. It is more than probable that these children either were not exposed or were immune. There were eight receiving serum after nine days who developed a modified form of measles within 2-4 days. In these cases the exposure must have been light and the amount of contact relatively negligible. These cases might have developed a very mild measles even without any serum administration.

Chart 2 summarizes the results according to age. It will be observed that in the youngest age group of 0-3 years, there was complete protection in 58% and sero-modification in 36%, or a total protection of 94%. Only one child, of the 166, developed typical measles despite adequate serum administration. No complications were reported. Such results are significant when one reflects upon the severity of the disease and the frequency of complications in this age group. Although it can hardly be expected that the serum protection should work with mathematical certainty, there is an additional margin of error that appears in the interpretation by different individuals of the cases reported to us.

CHART 2. RESULTS OF IMMUNIZATION IN RELATION TO AGE OF CONTACTS

Age	Total	No Disease		Modified Measles		Moderately Severe Measles		Typical Measles	
		#	%	#	%	#	%	#	%
0-3 yrs.	166	99	60	58	35	8	4.5	1	0.5
3-10 yrs.	107	64	60	33	30	6	6	4	4
10+ yrs.	9	6	66	1	11	1	11	1	11
Not Known	5	3	60	2	40				

CHART 3. RESULTS OBTAINED WITH EACH POOL OF CONVALESCENT SERUM

Lot #	Donors	Day after Disease Serum Collected	CC.		DAY										Total	%
					1	2	3	4	5	6	7	8	8+	?		
I	4	10	225	No Disease	3	3	4	14	6	3			2	2	37	56
	1	12	75													
	1	8	100													
	1	7	75	Modified Measles	2	3	1	8	4	2			2	3	25	38
	1	6	95													
	1	5	72													
	9			Typical Measles					1	1		1	1		4	6
II	2	13	240	No Disease			1	1							2*	
	1	17	110													
	1	11	60													
	1	?	35	Modified Measles			2				1				3*	
	5															
				Typical Measles					1				1		2*	
III	2	8	200	No Disease	2	4	4	6	2	3	1				22	50
	1	10	100													
	1	11	85													
	1	18	90	Modified Measles		1	2	5	2	1	2		3		16	37
	1	28	90													
	6			Typical Measles				1		1			4		6	13
IV	1	75	125	No Disease	2	3	5	3	3	2	1				19	43
	1	50	125													
	1	31	110													
	1	30	120	Modified Measles	2	4	1	7	4	1	2				21	48
	4															
				Typical Measles		1	1	1					1		4	9
V	1	37	125	No Disease		7	5	4			3			3	22	65
	1	12	130													
	1	8	50													
	3			Modified Measles		1	1	2	5			2			11	32
				Typical Measles		1									1	3
VI	1	96	110	No Disease	4	10	14	3	1			1		3	36	68
	1	77	125													
	1	52	125													
	1	19	105	Modified Measles		2		4	3	2	2			1	14	26
	4															
				Typical Measles			1					1	1		3	6
VII	1	51	105	No Disease	6		12	7	5	3			1		34	87
	1	28	120													
	1	21	105													
	1	11	90	Modified Measles			1						2		3	8
	1	8	110													
	1	5	100													
	1	?	115	Typical Measles									1	1	2	5
	7															

* Too few for computation.

To illustrate, a number of children were recorded as having received sufficient serum on the same day as exposure, yet the patients developed modified measles. Although this result was satisfactory, further investigation disclosed the fact that the physician dated the exposure from the time that the immunized child's brother or sister developed the rash, ignoring the fact that intimate contact had been maintained during the catarrhal infective period preceding the eruption. But even when such reports are excluded, others remain of children who received serum at an early period, yet modified measles developed. There are also six children who should have been protected but who developed moderate measles and one case a severe measles. In these instances, it is possible that the amount of infectious agent implanted on exposure was unusually large or the patients may have been in very poor physical condition. It is an indication, nevertheless, that a minimum dose should not be employed, but one with a sufficient margin of safety to ensure adequate protection. Furthermore, whenever possible, all the factors minimizing the efficacy of serum should be considered in each case, and serum dosage and optimum time of administration then decided.

CHART 4. RESULTS OBTAINED IN CONTACTS GIVEN 2.5 CC. OF CONVALESCENT MEASLES SERUM

Day after Contact	No Disease		Modified Measles		Moderate Measles		Severe Measles	
	No.	Age	No.	Age	No.	Age	No.	Age
1								
2			1	6 yrs.			1	5 yrs.
3	1 1 1	1 yr. 4 yrs. 6 yrs.	1	7 mos.				
4	1 1 1	1 yr. 4 yrs. 6 yrs.	1	4 yrs.	1	3 yrs.		
5	1	1 yr.	1	1 yr.				
6	1	6 yrs.			1	9 yrs.		
9							1	6 yrs.
Total	8		4		2		2	
%	50		25		12.5		12.5	

There were 16 cases that received 2.5 cc. of serum. Chart 4 summarizes the results with the ages of the patients. Eight cases were completely protected, four developed modified measles, and four developed more or less typical measles. One of this last group was given the serum on the ninth day, but the others received the serum early enough to expect protection. Although this is a small group, too small to be conclusive, it indicates the advisability of establishing 5 cc. of serum as the minimal dose, with increasing amounts for older children.

It is of interest to consider the results obtained with the different pools of serum, made up of samples of blood collected at varying intervals after defervescence. Because of the scarcity of available adult donors, there were times when we were compelled to use donors who had recovered from measles, one, two and in one case, even three months preceding the time of bleeding. As previously stated, we included in the pools, serum from fresh convalescents so as to obtain a relatively high immune titer. Chart 3 reveals the effect from these different pools. With the exception of Lot II, we received reports from 34 to 66 cases for each lot of serum. It appears that there is not a great deal of difference in the efficacy of the various pools despite the difference in the period elapsed between defervescence and collection. Lot VII seems to indicate greater potency for complete protection than Lot I, a result that is surprising in view of the fact that Lot I consisted of samples of blood drawn not later than 12 days after defervescence as compared with Lot VII in which only one-half of the blood was drawn from fresh convalescents. This greater potency may be more apparent than real. Serum from Lot VII was used in the last part of the season, when measles cases were subsiding both in number and severity and the exposures may not have been as intimate or the amount of infection as great as occurred during the height of the epidemic.

Serum from Lot IV (made up of samples of blood drawn 30, 31, 50 and 75 days after deferescence) had the least beneficial effect in complete protection, 43%, but the total of complete and partial protection 91%, compares favorably with the other pools. It is significant that, clinically, the results from

the different pools were quite similar. The practical importance of this is that it increases the source of serum supply and its availability. Convalescent blood is obtained almost entirely from adults, in whom measles does not occur frequently. Children are not employed as donors, chiefly because they are too young to furnish any satisfactory amount of blood, and even when older, it is found almost impossible to gain the consent of their parents. It is very difficult to obtain the required amount of measles convalescent serum from adult patients within 10 days of their illness. If, as we have found, the blood maintains immune power to give the desired protection in the dosage used for a period 2 to 3 months after defervescence, then the same individuals may furnish blood two or even three times, and other patients, not available immediately after their illness, may act as donors at a somewhat later period. In this way, it will be much less difficult to secure and maintain an adequate supply of serum.

Due to the difficulty of obtaining serum, there were short periods during which no convalescent measles serum was available, and at this time pooled adult normal serum in 20 cc. doses was recommended. We have received reports of the use of this serum in 25 instances. Chart 5 summarizes the results

CHART 5. CASES RECEIVING POOLED NORMAL ADULT SERUM

Day after Contact Serum administered	No. Cases	No Disease	Modified Measles	Unmodified Measles
1	3		2	1
2	1	1		
3	3	2	1	
4	12	8	4	
5	6	3	3	
Total	25	14	10	1
%	100	56	40	4

that were obtained. The serum was used in all cases within 5 days after exposure. In some instances, the reports indicate that the full 20 cc. that had been supplied was not used. Conclusions cannot be drawn from so small a number of cases, but the results indicate that those receiving smaller doses than 20 cc. did not derive as much protection as those who were given the complete dose. There were 14 patients, or 56% completely protected, 10 patients, or 40%, developed modified measles and one developed a moderately severe measles. Such results are highly satisfactory and compare very favorably with those from the convalescent serum. Normal adult serum can be obtained with ease and at short notice, and, from the evidence, if used in large enough amounts, appears to be a trustworthy and effective substitute for convalescent serum.

CONCLUSIONS

1. 287 measles contacts were treated with measles convalescent serum, with complete protection in 60% and attenuation of the disease in 33%.

2. The minimum dose employed should not be less than 5 cc.

3. Other factors, such as age, weight, general physical condition, the presence of some other infection, intimacy of contact, length of contact, and interval elapsing between initial contact and injection, should be considered in determining the necessary amount of serum to make an adequate dose.

4. If possible, every case should be individualized and, depending upon those factors influencing the efficacy of the serum, the proper dose and optimum time of administration should be decided to produce the desired result for each case.

5. It is preferable to allow the development of sero-attenuated measles, with its resultant active immunity, except in sick or poorly nourished patients. In the latter group, complete protection should be attempted under these adverse conditions, and at some future and more favorable time, on re-exposure of the child, the usual plan of sero-attenuation can be followed.

6. Serum from patients who have had measles within 2 or 3 months seems to be just as protective as that from recent convalescents. This knowledge increases the available donor list and the possibility of maintaining an adequate supply of serum.

7. Twenty-five measles contacts received adult pooled normal serum with complete

protection in 56% and sero-attenuation in 40%.

8. Pooled normal adult serum is readily available. In larger amounts of 20-40 cc. it makes an effective substitute for convalescent serum and can be used with confidence whenever the supply of convalescent serum is diminished.

We take this opportunity of expressing our appreciation to Dr. Herman N. Bundesen, President of the Chicago Board of Health and to Dr. Julius H. Hess, for their interest and important aid in the work of the Samuel Deutsch Convalescent Serum Center.

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PRESENT STATUS OF PROSTATIC RESECTION

From 1927 to April 15, 1932, THEODORE M. DAVIS, Greenville, S.C. (*Journal A. M. A.*, Dec. 3, 1932), states that he performed 372 prostatic resections. The majority of the patients operated on during 1927 and 1928 had obstructions of the smaller type; a good number, however, had typical adenomatous hypertrophy. It is gratifying that although he did not remove as much tissue at that time as he would in a similar case today, the results have been satisfactory and the patients are free from obstruction. During 1929, 1930, 1931 and 1932, approximately 25 per cent of the cases have been of the larger types. He cannot estimate what the percentage of recurrence in all these cases will be over a five or ten year period; time alone can demonstrate. It is probable that there will be a higher percentage of recurrences than the results in his earlier cases would indicate. Considering the experience of Caulk in a large number of cases over a ten year period and of the few cases of his own that have extended over four or five years, he is inclined to believe that the incidence of recurrence will be small.

THE FAMILY PHYSICIAN

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In the September number of the ILLINOIS MEDICAL JOURNAL we notice an editorial, under caption of "In The Family Physician Rests The Hope Of The Future Stability Of Medicine."

That is a mighty fine title and the following remarks are trite and to the point, but we would like to know where you are going to get the "family physician." That is the "family physician" of days gone by. The physician of today is *too well* educated and his education has been so expensive and the incidental investment therein has been too great for him to settle down to the more or less underpaid position of general practitioner. He has, to a very considerable extent, equipped himself so that he feels that he can enter one of the higher paid specialties immediately after finishing his medical studies. With the idea of becoming one of more or less limited medical duties he does not take unto himself a broad view of medicine as a whole, for why should he know anything about the treatment of the baby with the colic if he is to be a surgeon—all young men want to be surgeons, you know—or an oculist or aurist, or one of the several other followers of special lines? Why should he know much if anything of pneumonia if he is to become a gastroenterologist? If he is to become a surgeon he does not feel that he should give much time to the study and subsequent application of drugs or chemicals in the treatment of the sick. Anyway, so we have been told, surgery is really the only worth while therapeutic agent, when all is said and done. Anything abnormal should be "cut out" and removed, for in the main any results attaining from medical therapy are nothing more than coincidental, for nature would have brought about a cure had the patient never had a doctor.

The young man, in the way of time and money, has expended a small fortune before he gets even a look in to profit producing work. His investment in these days of "higher medical education" is so great that he, per force, *must* step into the highly paid specialties, if he would even earn interest on his investment. He simply cannot afford to settle down and do a general practice, for that would put him eternally in debt, for he would receive little or no return on his invested time and dollars. Some say the young man, upon graduation, is indebted to himself to the tune of not less than $25,000. Such being the case, the young man's income would have to be not less than $1,500 per year simply to pay the interest at 7% on his educational investment. Deducting his overhead it is very probable that his interest on the investment would dwindle considerably under 5%.

But few of our young men of today have any desire to bury themselves in country locations. This is partly due to the fact that they have learned only the hospital side of the practice of medicine and so feel that they cannot carry on their activities outside the four walls of the hospital. They have not been taught to depend upon themselves and so would be at a loss were they taken away from the only workshop of which they have much cognizance, the hospital. But few of them would even think of or much less attempt a "kitchen table" operation, for how could they be sure everything was sterile and that infection would not follow in the wake of any "at home" surgery? This in spite of the fact that our forefathers in medicine did many operations and with mighty good success in the homes of their patients.

Because surgery has been touted to us as the therapy, par excellence, the young man of today receives far too little in the way of education in drug medication. In fact, so we have been told, some medical schools have practically dropped materia medica from their curricula. As a consequence our young men do not know all the tools of their trade. It is not until they leave school and the patient demands relief from his discomforts that the young doctor begins studying much in the way of drug therapy and much of his information comes to him via either the detail man or what we older men call the "waste basket" stuff that reaches all of us daily in our mail. Through both these avenues of post-graduate education (?) our attention is not called to the old and time tried—and cheaper—medical agents, but to the pharmaceutical specialties which give the makers bigger profits than do the staples of our forefathers. Of course, having been advised by those who would tell us what to do, we know or are supposed to know that those old time

things which did so well for our forefathers are really not worthy of even our passing attention. *They Don't Give Their Makers a Big Enough Profit!* Of course aconite is not as dependable as some coal tar derivative with a fancy name and selling at a cent or more a grain and too, aconite is a dangerous drug, you know and should not be employed. There are a lot of old time drugs that apparently gave us wonderful results—maybe Old Dame Nature did the work—which have been thrown in the discard. Of course such drugs, having meandered out of the pharmacopeia, are given no attention in our medical schools, for if a thing is not U. S. P., or its makers have not paid certain journals much money for publicity space, then such things are worthless. This is just another reason why the young graduate of today cannot become a "family physician" in every sense of the word.

The young man in medicine today does not learn a trade, but rather a profession, for he does not reach anything bordering upon a medical atmosphere until he enters his junior year in medical school. Even then most of his work, in fact all of his own, is theoretical, for he does not contact directly with the sick. He does not have to form judgment, for that is done for him by his teachers. Even in the hospital he does not, as an interne, have to place great reliance upon himself, for there again the chiefs of staff do much of his thinking for him. One might as well put a lad alongside a lathe, planer or whatnot of the machine shop with a book and let him look on while a journeyman ran the machine and expect to turn out a finished machinist. It is "getting one's fingers actually into the pie" that makes the finished workman, be he ditch digger or doctor. We grant that more "finished" doctors may be turned out today than thirty or forty years, if not longer ago, but they are only "finished" in a theoretical sense, for theirs has not been the practical education when we older heads in medicine followed and actually worked with our preceptors. Through doing such work we gradually obtained a sense of judgment and to the extent that we frequently took second thought, a thing more or less uncommon with our young men today, before doing this, that or the other thing. We began contacting to a greater or less degree with actual patients almost the moment we began our medical studies and we soon began to differentiate the differences between the normal and abnormal conditions of those with whom we were thrown. In many instances we almost if not quite reached the point where, like some of our quack friends, we could diagnose certain conditions "without asking a single question." How many of our young men of today can do things of that sort? Very few, we opine, and doing things without asking too many questions is one of the things that goes to make the successful family physician. The study of humanity is of just as much importance in preparation for the practice of medicine as that of the study of either surgical or medical therapy. The family physician, if he be successful, studies the characteristics of his various patients as closely as he does their diseases, for he knows that no two persons are absolutely alike and also that no two respond, absolutely, to the same methods of therapy. Under the older methods of medical education such differences were brought to the attention of the student by his preceptor. He learned humanity in its various phases along with medicine and so was able, upon graduation, to cope with the many peculiarities presenting.

Today the young man in medicine has it forced upon his mind that he *must* depend upon one of the various laboratories which enter into diagnosis and many other things connected with the treatment of the sick. Here is another reason why the young man does not want to become a family physician and "bury himself" in some village more or less far removed from the city and its laboratories. He has not been taught that he has several special senses and if they are put to work he can envolve a working diagnosis at times without the use of the x-ray, test tube or whatnot. Sir James Mackenzie once remarked that the various mechanical tools employed in the diagnosis of heart conditions were nice things to verify diagnosis, but that they were not absolute necessities in that connection, providing the doctor had acute special senses. The same holds good in the consideration of other abnormalities. If we see a patient with a dropsical condition below the waist, or possibly the diaphragm, we are pretty sure, without calling on the laboratory for a moment, that the heart, and not the kidneys, is involved. If the edema is above the waist and we find

puffy eyelids, we are rather sure we have a nephritis with which to deal. We can diagnose such cases without asking many or any questions and our diagnosis will be substantiated by mechanical or chemical means. One does not need an x-ray picture to diagnose a palpable fracture, but of course such pictures should always be made, that we not be subsequently questioned—or sued for malpractice.

That the young man of today does not know his materia medica is shown by the way he handles many pathologic processes. We have seen a pneumonia patient given as many as five prescriptions at once and these carrying four or five times that many remedial agents. We have seen such patients started on digitalis at the onset of the disease and before it was determined that the heart might be failing. We have seen other cases in which there was no attempt made to alkalinize the patient or enforce elimination; the latter to our mind being the key note in the successful treatment of pneumonitis and that regardless of its type. We have seen other young men depend almost wholly upon bacterins and serums and frequently noted that their mortality rate has been large. But few of the young men of today seem to realize that it is almost if not a tragedy to move either a pneumonia or typhoid patient, that such moving in many instances means almost sure death. How many of our young men realize that aconite is a mighty fine thing in pneumonitis; that it not only acts to moderate the temperature, but sedates the patient and makes him more comfortable?

In the treatment of heart disease the young man is taught to use digitalis in practically all cardiac abnormalities and that in rather heroic doses; all this in spite of the fact that our authorities on materia medica tell us that the uses of digitalis are few and limited. We have stood along the side lines and seen heart patients die, but not from heart disease, but digitalis heart block when the remedy has been administered without rhyme or reason. This is just another reason why the young graduate of today will not make a successful family physician. He does not realize that in many instances strychnine is far preferable to digitalis under certain conditions. Nor does he seem to realize that digitalis *never* wholly corrected an organic cardiac lesion.

In spite of our higher education, our mortality rate has not shown much decrease. It is no doubt true that life has been lengthened by some years, but that cannot be wholly credited to the medical man, but rather to the sanitary engineers who have given us better places in which to live and who have corrected many things that in the past led to disease production. In spite of such improvements, when man does become ill his chances of recovery are no better than they have ever been and the mortality rate has not been reduced very preceptibly, not even with our more highly educated young doctors.

The day is rapidly approaching when the people, of their own accord, are going to demand less surgical and more medical treatment. More and more are they asking, "Doctor, do I have to have an operation?" Like we of the profession, the public is becoming aware of the fact that surgery is not all that it promised to be and that it is not a panacea for every ill under the sun. We do not say that surgery is worthless, or nearly so, for it has its indications, but also has drug therapy and in many instances is the latter preferable. But the young man of today is educated to enter some big fee surgical specialty and so cannot be a good general practitioner, for he is bound about by the narrow borders of specialism and so cannot be a broad gauge practitioner, such as you and I have known in the past.

If the family physician is to come into his own there must be a decided change in our methods of medical education. Also, the cost of medical education must be lowered so that the young doctor will not have invested such huge sums before becoming able to become a wage earner. He must not have to pay interest on anything like a $25,000 investment through his efforts as a practitioner. All that entails worry and worry interferes with good and efficient work.

During his ten years or so in the various pre-medical and medical schools the student lives very largely among the bright lights of the cities. As he says, "there is always something doing," both in and outside of school. He, after entering practice, does not like to "bury himself" in those places "where there is so little doing." Only recently we were in a position to offer a young man a wonderful place

in a small town and where he would at once become independent of all worry. Did he take on the proposition? He *did not* and said "Who wants to live in the backwoods so far from everything?" That young man may sometime be a more or less successful family physician—which we doubt, for he already has his eye on a specialty that pays *real money,* as he puts it.

The place of the family physician must be made more popular in every way before it will become attractive to the doctor of today. The day will have to come when surgery will cost less or internal medicine more before we may look for a vast horde of family physicians, unless, of course, the cost of medical education be reduced to a considerable extent. The teachers of today should remember that some very successful doctors came out of the two and three year medical courses. They made mighty fine family physicians.

EMERGENCY RELIEF FOR MEDICAL AND SURGICAL AID

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Medical aid is a problem of great importance, and in this plan, I shall endeavor to take care of our indigent sick, by giving them proper care and service during this long, drawn out depression.

Before going into detail, I wish to state that not only must our poor who are already receiving aid from the Emergency Relief be considered, but also that great mass of people who are still working for meager salaries. When illness strikes the homes of the latter class, they are even more helpless than our real destitute. Their incomes cover only the bare necessities of life, and do not include any provision in their already overtaxed budgets for medical care.

In regard to the recent discussions in our daily newspapers concerning hospital beds for our poor, it is indeed a known fact that improper care and treatment are being rendered in our over crowded and practically bankrupt County Hospital. Not all patients can go to the hospital when they are sick, and most of our needy, at the present time, still have a family doctor in whom they have implicit faith. Can the doctor conscientiously continue to treat these patients gratis? The answer is "No!" It is a known fact that the doctor was the first to feel this depression, and was, perhaps, the hardest hit of our honored professions. What is the outcome? Simply this. When the physician is called upon today to see a sick patient, what confronts him? This—the patient has already been sick for a number of days. Possibly, the county doctor was out to see him, and the aspirin which he has left has failed to make the patient better. The M.D. is now faced with a much harder task than if he had been called early in the illness, as in previous years. Result—if death does not intervene, there is a long and tedious convalescence with much added expense to our Emergency Relief.

There is a need for more charity beds, but charity beds alone will not remedy the situation. There are a great many patients who can be treated at home, if proper medical care is provided. Proper medical attention can only be given at this time, frankly speaking, by the doctors of Chicago, when they know that in serving our poor and needy public, they in turn shall receive some compensation for their labors and knowledge. It is an established fact that the poor and needy who are on the roster of our Emergency Relief get food, coal, light, clothing, and other necessities of life, but medical needs, more important than some of the items mentioned, are entirely neglected in some cases, and in other instances, when medical aid is finally given, it is practically valueless from a medical and scientific standpoint.

Those in need of medical care at the present time are dependent upon the Cook County Hospital, county and city physicians, dispensaries, and supposedly free clinics. During normal times, the above mentioned agencies could not handle the situation, so how can they handle it now? I venture to say that if statistics, combined with an actual check-up on the individual practitioners of medicine, in regard to their charity work, were presented to the general public, they would reveal figures ranging from sixty to seventy-five per cent. of total amount work done without compensation whatsoever.

Our adverse weather conditions, coupled with insufficient clothing and food, financial worries and upsets, are indeed the ideal culture media

for influenza. At the present time, mild flu is running rampant throughout our great city. What would happen if we had a real epidemic, such as was experienced in the past? God only knows!

To all the duly licensed and regular practitioners of medicine, Fellows of the A. M. A., and members of the Chicago Medical Society, and its component branches in the state of Illinois, who are willing and ready to co-operate with the Emergency Relief, I present the following plan to the Emergency Relief for consideration, action, and changes they may deem necessary, providing they do not deviate grossly from the original plan.

There are three types of patients to consider in this great health saving work:

1. The ambulatory type, i.e., those who can go to their doctor's office for treatment.
2. The home case.
3. Hospital cases, which must be divided into:
   a. surgical cases
   b. medical cases
   c. obstetrical cases.

Let us consider the first type of patient. This, by far, will consist of the largest group. How shall we handle them?

Medical tickets shall be the medium of exchange, and these shall be divided into three classes:

1. Office treatment
2. Home call
3. Hospital case.

Along with these tickets, a preliminary and final report blank shall be furnished, these to be filled out by the attending physician. These preliminary blanks that the doctor should be requested to fill out, shall consist of diagnosis, plan of treatment, and prognosis. The final report blank must be filled out at the termination of illness, and this is to consist of a combination medical report and bill for services. The preliminary report must be filled out within 24 hours, and mailed, together with the medical ticket, either to the District Relief Station, the main office of the Emergency Relief, or any special branch they may have for medical service. People asking for medical aid must present themselves for their medical ticket and blanks, at their neighborhood relief district station. In case of extreme emergency, any adult member of the family may apply for another. It should be fully understood between all doctors rendering this service that the Emergency Relief reserves the right, and has the power to investigate each and every case. This would tend to prevent fraud. Also, recommendations for doctors by the Emergency Relief shall be considered unethical, unless the person applying for aid has no family doctor. Then, each district shall have a list of doctors in their territory serving the Emergency Relief, and each shall be called in rotation for service.

Returning to our office treatment, if specific medication is needed, the doctor, upon request, shall be furnished with same. No matter what the treatment may be, the office rate shall be limited to one dollar.

The Home Case: A fee of two dollars for the first visit, and if extra visits are necessary, they shall be at the rate of $1.50. These rates, during this crisis, must include night service, if necessary.

In reference to these home cases, many times the doctor will be confronted with the situation that there is no medical ticket there, especially in the case of night emergency calls. Here the doctor must leave a note, stating that he called, the time, and the nature of the emergency illness. This note must be presented within 24 hours to the Emergency Relief station, so that proper blanks be furnished the doctor, together with the medical ticket. Failure to procure these blanks will tend to cease medical attention, and their name to be reported to the Emergency Relief for further action and treatment.

Hospital case: Hospital cases must be divided into:

a. Surgical
b. Medical
c. Obstetrical.

Medical cases, no matter what the condition may be, the doctor shall receive compensation at the rate of $1.00 per day, whether his hospital visits consist of one, two, or as many visits as he may deem necessary for this particular case. Surgical and obstetrical cases, as far as compensation to the physician, surgeon, or obstetrician, a definite fee table must be worked out by the Emergency Relief, and this fee table, I suggest, shall be 50% of the minimum fees as listed by the Chicago Medical Society's fee table in the Chicago Medical Blue Book.

If extra hospital beds are to be provided for, which we are in extreme need of at the present time, I suggest that this proposition be presented to all Class A hospitals, without favoritism. If every hospital that is willing to cooperate on a no profit basis shall be permitted to participate in this real life saving work, this will eliminate certain hospitals from being filled to capacity, and others more than half empty. It will also provide hospital staffs a definite place to send their needy patients, and continue to treat them in the institutions with which they are acquainted.

The foregoing plan will be easily understood by those who are on the emergency relief list. The other class, as mentioned early in my report, consisting of that working type, who are unable to provide for medical service, would benefit under the following plan:

Registration of persons working, but not making enough for medical care. Registration application should have among its questions the following: Weekly salary, number of dependents, number of people working in same home, financial obligations, such as payments to finance companies, etc., and family doctor.

Rejection or acceptance of applicants shall be left entirely to the Emergency Relief. If accepted, they shall be furnished with a medical identification ticket, instructing them, in case of illness, to present this ticket to their neighborhood relief station, and there they shall be given the medical ticket, together with proper medical blanks, and further instructions.

As stated before, the medium of exchange will be these medical tickets, based upon the final report for services rendered. The doctor should forward these bills for service on proper blanks to the designation, as shall be specified. These in turn shall be redeemed just as food stuffs, coal, etc., furnished by different merchants, when they present their bill for payment.

The question may come up as to where all this extra money is going to come from, when our relief fund is far from being adequate to take care of food, etc. I leave this entirely in the hands of the Emergency Relief.

3205 Ogden Avenue.

Visitor: "What a quaint accent your children have."
Father: "Yes; between the talkies and the radio I don't know what they're saying half the time."

THE SIGNIFICANCE OF THE ELECTROCARDIOGRAPH TO THE GENERAL PRACTITIONER*

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Although an electrocardiograph suitable for clinical purposes was perfected by Einthoven in 1903,[1] it is only within the past decade that this method of study has been widely applied in clinical medicine. With increased use, interest in the significance of the electrocardiogram has been intensified. For this reason the subject assigned is timely; many practitioners are eager to know to what extent the results of electrocardiographic study are merely interesting as scientific data, or actually useful and helpful, even indispensable.

From the standpoint of clinical medicine the electrocardiogram is of value:

1. In the objective demonstration of modern conceptions of cardiac activity.
2. In the diagnosis of cardiac irregularity.
3. In the recognition of myocardial disease.
4. In the determination of preponderance of either ventricle.
5. In coronary disease, especially acute closure of a vessel.
6. In the study of the therapeutic effects of drugs, especially of digitalis and its congeners and quinidin.

In a broad sense the electrocardiograph affords an insight into two main functions of the cardiac structures, stimulus production and stimulus conduction. Abnormal sites of stimulus production are revealed in the electrocardiogram by the presence of ectopic beats, extra-systoles, of auricular, nodal or ventricular origin, auricular fibrillation, auricular flutter and certain types of tachycardia. Disturbances of conduction include the abnormalities of auriculo-ventricular conduction and those of intra-ventricular conduction; the latter are responsible for the deformities of the ventricular complexes characterized by widening and deformities of the R-S complex. The signs of ventricular preponderance are probably the result of conduction through a larger mass of muscle. Increase of height or

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*Read before Chicago Medical Society, November 30, 1932.

width of the P wave, often with notching, indicates prolongation of conduction within the auricular muscle, due to auricular hypertrophy.[2] Abnormalities of the Q and T waves cannot be included under such simple classifications; thus far the Q and T waves have not been related with certainty to anatomical change or physiological phases of the heart.

The electrocardiograph has helped the physician to visualize normal and pathologic cardiac activity. The ocular demonstration of the deflections produced by the contraction of auricle and ventricle, occurring in regular sequence, and of the uniform time relationships throughout the course of a normal contraction, has illustrated the accepted theories of stimulus production and conduction, of muscular irritability and contractility.

Extensive experimental studies have related many electrocardiographic abnormalities to alterations in cardiac structure or function. These may result from extrinsic or intrinsic causes. Extrinsic factors are usually nervous or toxic; other factors such as thyroid dysfunction or anoxemia may be effective. Intrinsic causes include alterations of the heart due to disease within itself. As we have added to the results of experimental work, accumulated clinical and pathological observations which shed light on the subject from a different point of view, the knowledge thus obtained has given to the practicing physician a clearer insight into the pathological physiology of the heart and the consequent electrocardiographic abnormalities.

Any portion of the heart muscle may be the site of stimulus production, the site of origin of ectopic beats. An actual or relative increase of irritability of the cardiac muscle underlies the production of ectopic beats. The initial deflection of the electrocardiogram, the P wave, is the mark of auricular activity. Variations in the shape and direction of the auricular complexes are indicative of ectopic origin of the impulse; these features are dependent upon the site of origin of the stimulus and hence the direction of the excitation wave of the premature beat.

Following the P wave in the normal electrocardiogram is a silent period during which the impulse to contraction is passing from auricle to ventricle, through the specific conducting tissue, the Bundle of His. Within 0.2 of a second from the beginning of the auricular deflection ventricular contraction begins and this, in turn, is followed by the pause of cardiac diastole. Ectopic or premature nodal beats are those which arise in the conducting tissue from the auriculo-ventricular node to the division of the main branch of the Bundle of His. Nodal ectopic beats, arising between the auricle and ventricle, may be unaccompanied by P waves, or the latter may be abnormally close to the R spike or elsewhere superimposed on the ventricular complex. Ectopic beats of ventricular origin are common; in the electrocardiogram these appear as grossly deformed ventricular complexes, occurring earlier than is expected, followed by a compensatory pause and not preceded by an auricular wave. Ectopic beats are not diagnostic of intrinsic cardiac disease. In the present state of our knowledge, we frequently must accept the extra-systole, especially of the ventricular form, as a functional disturbance unless accompanied by definite symptoms of heart disease. When the history discloses previous disease likely to be followed by cardiac involvement, the premature contraction is more important.

The significance of auricular fibrillation and the possibility of successful control or relief of this condition have been mainly demonstrated by electrocardiographic study. The various types of tachycardia and the presence and degree of heart-block may also be identified by the electrocardiogram.

Cardiac irregularities have been so well studied that they may often be correctly diagnosed without the use of instrumental means. This is particularly true of ectopic ventricular beats and auricular fibrillation. The diagnosis of ectopic beats of auricular and nodal origin, the determination of the origin and character of a paroxysmal tachycardia, the demonstration of heart-block of various degrees, practically require instrumental procedures.

The electrocardiogram often reveals objective evidence of myocardial disease. Occasional discovery precedes the appearance of clinical signs or symptoms. The diagnostic value of the electrocardiogram in the recognition of myocarditis in the course of acute

infectious diseases has been demonstrated. The electrocardiographic abnormalities which are found in such conditions are usually ectopic beats of variable origin, auricular fibrillation, T wave anomalies, and disturbances of auriculo-ventricular conduction. Gross changes of the R-S complex are not frequent. Low amplitude deflections may also be found in the course of infectious diseases. The significance of such deflections has been the subject of much dispute. It is the opinion of Sprague and White[3] that they are of diagnostic importance. They say, "Excluding the temporary effect in hypothyroidism, low voltage has never been found, in our experience, in records from normal hearts. It is a finding of diagnostic and prognostic importance in forming an opinion of the myocardial ability of any individual." They defined "low voltage" thus: "the QRS deflections of these patients do not deviate in either direction from the base line more than 5 mm. in any of the three customary leads."

In the degenerative types of disease obscure symptoms and minor physical findings may become important upon the discovery of electrocardiographic changes: these usually involve the ventricular complexes presenting widening and slurring of the R-S complex, depression of the T wave, alterations of the S-T portion of the electrocardiogram and disturbances of auriculoventricular conduction.

T wave depression is not always a sign of myocardial disease. Its occurrence as the result of digitalis medication and even as a sign of digitalis effect has been generally accepted. Recently Brams and Gaberman[4] have challenged these views. They believe that "Inversion of the T wave can not be regarded as an early or constant sign of digitalis effect." Holzman[5] states that widening and notching of the QRS complexes, negative T waves, and low voltage of all the waves occur in myxedema; White and Wood[6] found T wave negativity in cases of uremia to which they attributed the abnormality. These examples are sufficient to indicate instances of T wave abnormalities in the absence of cardiac disease.

In many cases of cardiac disease, recognized clinically with ease, the value of the electrocardiogram is confined to confirmation or elaboration of the diagnosis and to enlightenment regarding prognosis. Perhaps the electrocardiogram reveals a surprising degree of myocardial change or of relative ventricular preponderance, much more pronounced than had been anticipated from the clinical examination. On the other hand, the absence of electrocardiographic findings does not disprove a clinical diagnosis based upon a satisfactory history and adequate physical signs. Cardiac disease may be present in cases in which the electrocardiogram deviates little or not at all from the normal. The failure of the electrocardiogram to help us in many cases of uncertain diagnosis and the inability to correlate all our electrocardiograms with clinical conditions are facts which must be accepted. It is a safe rule not to ignore the abnormal electrocardiogram even though symptoms are minor; it is equally important not to attribute too much importance to questionable electrocardiographic abnormalities.

With certain reservations the presence of ventricular hypertrophy may be discovered or confirmed by electrocardiographic study. Under standard conditions, with consideration of the build of the patient and of conditions which tend to displace the heart, the electrocardiogram reveals valuable evidence of left or right ventricular hypertrophy. Left ventricular preponderance is found especially in hypertensive cardiac disease and in syphilitic or rheumatic disease with aortic lesions. Right ventricular preponderance is usually the result of long-standing mitral disease, congenital cardiac disease or acquired pulmonary lesions. The "hanging heart" of the Habitus Asthenicus may indicate a shift of the cardiac axis toward the right but rarely does this condition present characteristic features of actual preponderance.

Medical directors for insurance companies have become interested in the opportunity, afforded by the electrocardiogram, to obtain objective evidence as to the condition of an applicant's heart. The types of cardiac disease which are most difficult for an examiner to detect are those which are loosely spoken of as the cardiovascular or degenerative diseases. In these types of disease the history is of the utmost importance. Diagnosis is often based almost entirely upon the statements of

the patient; this history is available to the physician consulted for advice, but it is not so readily imparted to an insurance examiner. Significant deformities of the ventricular complexes and disturbances of conduction assume importance in the estimation of an individual's insurability.

In recent years the electrocardiogram has become important in the diagnosis of coronary occlusion. The coronary T wave of Pardee is of especial significance. Failure to demonstrate this change in the electrocardiogram does not disprove the presence of coronary occlusion, but its demonstration is valuable evidence of such a condition. The work of F. M. Smith[7] showed the similarity of the changes in the human electrocardiogram to those which follow coronary obstruction in the dog and demonstrated many of the characteristics of the electrocardiogram following such occlusion. Studies in this connection have contributed to the ease and certainty of diagnosis of cases of coronary occlusion even in the uncommon cases in which pain is not a prominent symptom. The electrocardiogram may be decisive in the differential diagnosis between coronary occlusion and acute surgical disease of some one of the abdominal viscera, or disease which involves the spinal nerves. While typical evidence of coronary occlusion may be afforded by the electrocardiogram, it is important to avoid over-emphasis of findings which are not characteristic.

Through the use of the electrocardiogram much information of clinical value has been acquired regarding the effects, clinical and toxic, and the proper methods of use of digitalis and its congeners and of quinidin. This is of especial clinical value in the identification of the toxic rhythms of digitalis. Digitalis may produce all grades of heart-block; the electrocardiogram is indispensable for the discovery of the earliest sign of block, prolonged conduction time. Digitalis often produces T wave negativity which is of fairly characteristic contour; this is a sign of clinical effect rather than a toxic phenomenon.

Ectopic beats may also result from digitalis administration. Occasional ectopic beats may occur or an ectopic ventricular beat may occur after each normal complex, forming the so-called pulsus bigeminus, a danger signal calling for the discontinuance of digitalis. Paroxysms of ventricular tachycardia, a succession of ectopic ventricular beats, even more ominous, may develop. If ventricular fibrillation supervenes demonstration of the nature of the toxic rhythm is rarely obtained; sudden death is usually the event. Without the electrocardiogram the diagnosis of ventricular tachycardia is difficult. The sudden inception of regular rhythm at a rapid rate, in a patient under treatment with digitalis, especially in cases in which auricular fibrillation is present, is an indication for the immediate withdrawal of the digitalis.

This discussion may be terminated with a warning against overvaluation of the electrocardiogram. This method of study does not supplant clinical study. Diagnosis, prognosis, and therapy must continue to be based, not upon a single method of instrumental study, but upon the results of clinical study supplemented by available methods of instrumental investigation. Care should be taken not to convey to the patient the idea that the electrocardiogram is infallible. To the laity instrumental methods of study bear much of the stamp of certainty associated with scientific procedures in other fields. An incautious statement as to the poor prognostic import of an electrocardiogram may make an impression upon the patient which cannot be corrected.

Elser and White[8] have pointed out the role of artefacts in producing confusion as to the interpretation of an electrocardiogram. They discuss as causes of such artefacts, muscular contractions (movement while the electrocardiogram is taken), somatic tremor, nervousness, hyperthyroidism, spastic contraction of muscles, high resistance which may be skin resistance or the result of poor connections, outside current, faulty contacts and composite electrocardiograms.

The disposition to read too much into the electrocardiogram is hard to resist. Slight slurring or notching of the R-S complex especially near the base-line, slight flattening of the T wave, an equivocal S-T phase are usually without clinical significance. The diagnosis of ventricular preponderance should not be made too jauntily upon border-line measurements. Minor changes in the electrocardiogram may be due to mechanical causes

or to nervous influences. Respiratory changes of the electrocardiogram are common especially in the third lead; these changes include variation in the amplitude of the T wave, and of any or all of the components of the Q-R-S complex. The electrocardiograph has established itself as a valuable aid to clinical study and experimental investigation. In clinical work, conservatism in the interpretation of the electrocardiogram and its application to the case in hand will eventually make for a surer basis of our knowledge in this field and increase the value of the instrument to ourselves and our patients.

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ACUTE SUPPURATIVE THYROIDITIS WITH REPORT OF ONE CASE

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Suppurative thyroiditis, following acute or chronic thyroiditis and strumitis, is quite common as is evidenced by review of the literature; but of itself is quite uncommon.

A. Alldridge Mathews (1910) reported a case of acute suppurative thyroiditis which occurred following an attack of typhoid fever in a white adult male. Frank Lahey (1917) described three cases: two of which had a history of tonsillitis, and one developed a thyroid abscess during his convalescence from bronchopneumonia. P. Calcetto (1918) reported a case of thyroid abscess occurring in the course of an acute pyemic otitis and mastoiditis without lateral sinus thrombosis. The features of exophthalmic goiter which developed at the onset of this disease subsided following the emptying of the abscess. C. K. Edwards (1921) reported 4 cases of acute thyroiditis; two of which occurred following influenza, one of upper respiratory tract, and the last one during an intestinal obstruction following an hysterectomy.

J. P. Tourneaux (1920) described a case of thyroid and perineal abscesses in a man with typhoid fever. Both healed completely following incision and drainage. He also reported another case of gangrenous thyroiditis in a man 35 years of age with a thyroid previously sound. This condition developed following an attack of influenza. Cultures made from the lesion revealed streptococcus and pneumococcus. Moses Behrend (1924) reported 2 cases of abscesses and one of gangrene of the thyroid. Lambert Rogers (1927) reported one case of thyroid abscess occurring in a male 31 years of age following boils on the sternomastoid muscle, and another case in a female, aged 48, who had had a goiter for many years and the abscess developed immediately following an attack of influenza. Howard Schriver (1927) described a thyroid abscess simulating an infected thyroid cyst which was present for 15 years before becoming suppurated. E. C. Burhans (1928) reported 67 cases of acute non-suppurative thyroiditis and mentioned 200 cases by other authors. He concluded that this condition is much more common than was recognized by the profession in general.

Miles M. Porter (1929) reported an interesting case in a man 60 years of age, who, following a prostatectomy, suddenly died from asphyxia. At autopsy, an acute streptococcic abscess was found to have been engrafted on a chronic inflammation in an old, nodular, nonmalignant goiter. It completely surrounded the trachea and esophagus with its isthmus behind and lateral lobes meeting in front of the trachea, and having the carotid stretched over the front of the right lobe of the thyroid gland. J. M. Mora reported 2 cases in children who developed thyroid abscesses following acute streptococcic sore throat. One was 2½ and the other 13 years old. Howard M. Clute reported one case of acute thyroiditis following upper respiratory infection and hay-fever. The thyroiditis subsided spontaneously. Later the patient developed a septicemia, and during an operation multiple abscesses were found in the thyroid gland.

Etiology.—According to M. O. Shivers, bacterial invasion may be responsible for all thy-

roid pathology. Infection produces thyroiditis with or without suppuration. The latter is more common and less dangerous. It is not caused by suppurative bacteria and may run a course without evidences of any acute inflammation. The suppurative processes are rare, and are usually secondary to pre-existing goiters or to other suppurative and destructive processes within the thyroid gland. Antero Cantero of the Mayo Clinic made cultures of 50 colloid goiters of which only three failed to show any bacterial growth. In not one of these cases were the bacteria of the same species.

Inflammations of the thyroid are more common in the female and between the ages 20-40 years. It may occur in the course or following acute infections, upper respiratory diseases, skin diseases, chronic infections and constitutional diseases. Searls and Bartlett found acute thyroiditis as a sequel to tonsillitis, otitis media, scarlet fever, pneumonia, and chronic thyroiditis in generalized miliary tuberculosis. Charles Edwards mentions skin lesions, tuberculosis, non-specific adenitis, acute pharyngitis, laryngitis, Vincent's and Ludwig's angina, peritonsillar abscess and puerperal fever as causes of acute thyroiditis and concludes that the infection is usually hematogenous. Ballerio and Messerle suggest that the infection may occur through the digestive tract among other causes, and cite examples of acute thyroiditis occurring in the course or following typhoid fever and enteritis. Schriver concludes that infections of the thyroid may be hematogenous, lymphogenous, or by contiguity. Gilman has found ordinary pyogenic bacteria, such as pneumococcus, B. Typhosus, and B. Coli as causative agents of acute thyroiditis.

Pathogenicity.—The thyroid gland is considered by many authors one of the most resistant organs of the body to infection. There are several anatomical and physiological reasons for this supposition. The gland is deeply seated in the anterior part of the neck, protected from external injury by muscles and fascia. Anteriorly it is overlaid by the sternothyroid, sternohyoid, and platysma muscles; on either side are the sternocleidal muscles. A heavy capsule is formed by the fusion of the superficial layers and pretracheal layer of the deep cervical fascia. This is continued down the neck, into the thorax and becomes continuous with the fibrous layer of the pericardium. The deep fascia tends to protect from invasion by infection in the contiguous structures. The infection is confined to its facial compartments and travels up and down but not through the fibrous columns.

In cases where the thyroglossal duct is persistent, the possibilities of infection is greater than in those cases where the duct is obliterated.

The thyroid gland is a very vascular organ receiving its arterial blood from the large superior and inferior thyroid arteries, while its venous return is through the superior, middle and inferior veins. Within the gland itself is a mesh-work of minute capillaries supported on a fine fibroelastic stroma. The lymph drainage is unusually free.

The secretion of the thyroid gland enters the general circulation either through the lymphatics or blood capillaries. Some men are of the opinion that this secretion has germicidal properties.[2] During puberty, pregnancy, menstruation and severe fevers, there is a physiological increase together with anatomical changes which make the gland more susceptible to infection. Adenomata frequently form which are the sites of fibrosis and abnormal cell proliferation. Blood vessels become distorted and frequent hemorrhages occur, all of which produce areas of lowered resistance.

The rich blood supply acts as a two way valve, in that it tends to prevent infection as well as cause it. The hormone tends to prevent infection, while the physiological changes, which occur, tend to lower the resistance. The plus and minus factors are equalized making the susceptibility of the gland low.

Pathology.—Inflammations of the thyroid gland may be classified into suppurative and non-suppurative and acute, subacute and chronic thyroiditis. Acute thyroiditis may subside by resolution or it may go on to suppuration or gangrene and form one or more abscesses. The right lobe is more frequently involved than the left one.

The pathological process does not differ from an abscess any place else in the body. There may be multiple miliary abscesses or large pus pockets involving one or both lobes of the thyroid gland. In the center of the abscess great masses of bacteria are often found. Streptococci and staphylococci are the most

common bacteria isolated, but B. Coli, B. Typhosus, Pneumococci and Paratyphosus A. & B. have been found. This infection is usually a pure one, but mixed infections have been recorded.[10]

Symptoms.—In acute suppurative thyroiditis there is a sudden onset of severe constitutional disturbances, such as chills, high temperature, general malaise and marked prostration. The pain is very severe and may be referred to adjacent regions in the neck before becoming localized in the thyroid gland. It is soon accompanied by dyspnea, hoarseness, dysphagia, sweats, exhaustion and evidences of local inflammation such as tumefaction of the gland with areas of redness, soreness and fluctuation over the thyroid gland which may become very firm, fixed and extremely tender. This may be localized in one lobe or involve the entire gland. Frank Lahey called attention to two important signs of acute thyroiditis namely; 1. flexion of the head with limitation of chin elevation, as any attempt at extension causes pressure on the thyroid gland by the muscles covering it, and 2. the depression of the chin on the sternum when swallowing. This is caused by the action of the sternohyoid, sternothyroid, and the omohyoid muscles on the abscess beneath them. If the abscess is allowed to advance the symptoms become more severe, the gland softens, and the tissues become edematous and necrotic. The abscess may rupture spontaneously if not drained surgically. More frequently the pus advances along the fascial compartments causing intrathoracic complications.

Prognosis.—The prognosis is good and recovery is usually complete, and ensues rapidly if proper treatment is instituted early. If neglected the abscess may spread and perforate into the mediastinum, trachea, esophagus and thoracic cavity. In some cases thyrotoxicosis or post-operative myxedema may cause exhaustion of the patient. The mortality in these cases is very low. According to Hogensnech, the mortality is less than 2%.

Differential Diagnosis.—The diagnosis of acute suppurative thyroiditis is made by the characteristic signs and symptoms based on a history of primary focus of infection and severe constitutional symptoms, such as high fever, general malaise and increasing severe pain from the beginning.

In hemorrhages into thyroid adenoma, there is a history of sudden exertion followed by sudden severe pain in the thyroid region which subsides rapidly while the gland increases in size. There are no severe constitutional symptoms.

Cellulitis of the neck may resemble a far advanced thyroiditis. However, in the former, there is little pain at the onset; there are no thyrotoxic symptoms; and the swelling usually begins in the floor of the mouth and advances downwards into the neck instead of beginning in the region of the thyroid as in thyroiditis.

In physiological hypertrophy of the thyroid, there is an absence of pain, fever, or tenderness and it occurs during periods of stress, such as menstruation, pregnancy and at puberty.

Branchial and thyroglossal cysts may be confused with thyroiditis where hemorrhage or infection of their contents occur. These are usually differentiated by their location cephalad to the thyroid gland, and may be recognized early before symptoms of acute inflammation occur.

Perichondritis of the trachea or of the thyroid cartilage may cause pain and tenderness in the thyroid region accompanied by dyspnea and coughing. The symptoms are usually predominantly laryngeal and the diagnosis may be confirmed by a laryngoscopic examination.

TREATMENT

Acute suppurative thyroiditis calls for incision and drainage. If the abscesses are mutiple, subtotal thyroidectomy is the best procedure.

Gilman advises the following procedure. He uses general anesthesia. A needle is inserted into the fluctuating area and pus is withdrawn. The incision is then carried along the needle before it is withdrawn. The opening is stretched by means of curved clamps, the pus is evacuated, and the cavity is explored by the finger. Rubber tubes are then inserted into both lobes to provide for good drainage.

Clute advises the collar incision in abcesses of the thyroid. This incision is made transversely through the skin and platysma muscles. The intermuscular fascia is split longitudinally and the sternohyoid and sternothyroid muscles retracted laterally on either side until the inflamed gland is exposed. Lahey recommends the severing of the ribbon muscles to promote

drainage. The cavity is opened widely and sponged out. Clute is of the opinion that curetting of the walls is contraindicated because the *blood vessels may be opened and serious hemorrhage result.* Drainage should be established *by means of a good sized hard rubber tube.* To insure free drainage from the most remote areas after collapse of the abscess walls, mutiple perforations may be cut along the sides of the tube and this split part of its length; the two split pieces being separated when the tube is placed, one tube going to each pole of the infected lobe.

All cases of suppurative thyroiditis must be followed up closely for signs of hypothyroidism. This complication is dependent upon the amount of destruction to the gland at the time of the infection.

Case 1. A white child, aged 3 years, was first seen by me on April 28, 1932, presenting the following history: The child had been very well until three days prior to my seeing her when she became very irritable and acted abnormally. The day previous, the father noticed a swelling of the neck and the child complained of pain about the neck. I found an elevation of temperature, swollen indurated region over thyroid gland, and the child was having chills and feeling very uncomfortable. I was unable to obtain a history of any previous infection or illness. The swelling of the neck increased, and fluctuation was noted. These symptoms and findings made me suspect an abscess of the thyroid gland. I recommended hospitalization and incision of gland.

A transverse incision was made over the thyroid gland. The intermuscular fascia split longitudinally and the sternohyoid and sternothyroid muscles retracted laterally. This exposed an inflamed fluctuating area over the right and middle lobes. This was opened and twenty to thirty cc. of free pus removed. Cultures from same showed a streptococcic infection. Rubber drains were inserted, incision closed and child sent to bed. Within two days, she was able to leave the hospital entirely recovered.

I have seen the child several times since the operation, and she appears to be in very good health.

CONCLUSION

Primary suppurative thyroiditis is rare. Usually it is secondary to thyroiditis or infection elsewhere.

Diagnosis of thyroid abscess is made by symptoms of an acute infection and typical findings in region of thyroid gland.

Treatment is incision and drainage of gland.

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TUBERCULOSIS IN CHILDHOOD*

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The importance of tuberculosis in childhood is evident from the mortality statistics. Thus in the year 1930 tuberculosis (all forms) has killed in the State of Illinois in the age groups under 15, 297 children, i. e., more than any of the other common infectious diseases of childhood except diphtheria. (Table No. 1.)

TABLE 1.
MORTALITY STATISTICS
STATE OF ILLINOIS YEAR 1930

Title	Downstate			Chicago			Total
	Under 1-4	5-9	10-14	Under 1-4	5-9	10-14	Under 1-14
Tuberculosis All Forms	55	18	33	107	44	40	297
Diphtheria	57	45	12	183	168	28	493
Scarlet Fever	44	26	9	82	73	10	244
Whooping Cough	124	2	0	53	2	0	181
Measles	46	14	5	7	0	0	72

*From the Peoria Municipal Tuberculosis Sanitarium.

*Read before Section on Medicine, Illnois State Medical Society, Springfield, May 19, 1932.

PULMONARY TUBERCULOSIS

Pulmonary tuberculosis in childhood manifests itself in the following forms:

1. Acute miliary, as part of generalized acute miliary tuberculosis;

2. Caseous pneumonia, or bronchopnuemonia;

3. The juvenile type, or childhood tuberculosis according to the designation of the National Tuberculosis Association;

4. The adult type.

The designation of the first two types is descriptive enough not to need further elucidation.

The characteristic lesions of the juvenile type are the primary focus, usually at the base of the lung and the involvement of the hilum, and the tracheobronchial lymphnodes.

In the adult type the lung parenchyma proper is involved to a greater or lesser degree. Cavitations are not infrequent.

Clinically, the disease especially in its early stage is more often than not of the latent type, i. e., neither subjective symptoms are observed, nor can any physical signs be elicited.

It has to be borne in mind that malnutrition is not a characteristic symptom of tuberculosis. Chadwick and Zacks,[2] Hetherington[3] and others have convincingly proven that tuberculosis is just as frequent among the well nourished and overweight children as it is among the undernourished. They have also shown that the disease is not more prevalent among the undernourished children than among those of normal weight.

Pulmonary tuberculosis occurs in children who have been or are in a more or less close contact with a case of open tuberculosis. In families where an adult member suffers from open pulmonary tuberculosis we usually find some of the children infected. Outside of the family, the school and the playmates will very often provide the contact.

During the past 15 months we have tuberculin tested in our Chest Clinic 276 children under the age of 16; 164 contact cases and 112 non-contacts. In this group we have found 44.51% reactors among the contacts, and only 17.14% among the non-contacts.

The disease being latent in its earlier course it is obvious that neither will the child have any particular complaints, nor will the parents find any reason for seeking medical aid. This fact in itself explains the common experience that by the time medical aid is sought the disease is usually in the advanced stage and the patient very often in a condition when medical aid is of no avail.

In this connection it has to be emphasized that chronic pulmonary tuberculosis has an unusually long incubation period covering often years and that the latent period is long drawn out lasting for a considerable length of time.

It is obvious to students of the subject that the fountain head of tuberculosis of the adult (Krause) has to be sought in tuberculosis of childhood. In this light, tuberculosis of childhood receives an added significance. It is evident that tuberculosis of the adult can be eradicated only by finding the latent cases in childhood.

In the teen ages pulmonary tuberculosis is still the chief cause of death. Among the five leading causes of death in the state of Illinois during the year 1930 pulmonary tuberculosis was heading the list with 285 deaths followed far behind on the second place by automobile accidents with 144 deaths. (Table No. 2.) During the same year and in the same age group the number of deaths from all causes was 1659. Thus 17.40% of all deaths in this age group was caused by pulmonary tuberculosis.

TABLE 2.
MORTALITY STATISTICS
STATE OF ILLINOIS
AGE GROUP 15-19, YEAR 1930

	Down-state	Chicago	Total
Pulmonary Tuberculosis	124	161	285
Auto Accidents	100	44	144
Diseases of circulatory system	57	83	140
Appendicitis	66	49	115
Lobar Pneumonia	44	23	67

Diagnosis. The latent nature of the disease makes physical examination of no reliance. It makes it also imperative that the diseased children shall be sought for among those who are apparently healthy.

As yet the combined use of the tuberculin test and the x-ray has been proven the only satisfactory method by which latent tubercu-

losis among the apparently healthy children can be successfully detected.

Investigators agree that the intradermal or Manteaux test is far superior in regard to reliability and accuracy to the original percutaneous test of von Pirquet. Those who are in favor of the von Pirquet test are so, because in general parents object perhaps less to a scratch on their children's arm than to injections. In the work of our Chest Clinic we use the intradermal test and have found no objections against its use. The children tolerate it well and only occasionally do we have trouble in applying the test to a child who is scared from the needle or the doctor. Perhaps the fact that the clientele of the Clinic is more or less familiar with the dangers of the disease accounts for the cooperation of the parents.

We are using for the test a solution of old tuberculin in the proportion of 1:10,000, or 1:1,000, injecting with a tuberculin syringe 0.10 cc. into the skin. Only in rare instances do we use the solution in the concentration of 1:100. It has to be emphasized that the solution should be freshly prepared, because it deteriorates even in days. It is preferable that the strength and reliability of the stock solution should be tested on individuals of known reaction, or on tuberculous guinea pigs. We believe, however, that when the test is used simultaneously on a large number of cases, the fact that some children will react to the test and others not, will in itself speak for the reliability of the solution.

Having found the positive reactors, a radiogram of these children will show the nature of their involvement. The radiograms will vary. They will show a picture of no appreciable pathological changes, or a primary calcified focus with slight to considerable involvement of the hilum or tracheobronchial lymphnodes, or slight parenchymal changes to massive involvement of the parenchyma.

We believe that no matter how much information can be gained from a properly prepared radiogram in regard to the picture of lung lesions, the nature of these lesions especially when the involvement is not extensive and where there is no sputum, or where the sputum is negative, can be cleared up satisfactorily only by the use of the tuberculin test. It cannot be forgotten that beside tuberculosis, other diseases also cause pathological changes in the lung, and that the x-ray appearance is not always characteristic enough for a reliable differential diagnosis.

In this connection it has also to be emphasized that whenever sputum is raised, even if tuberculosis is not suspected, the sputum shall be carefully and repeatedly examined for tubercle bacilli. We see it only too often that this elementary measure is neglected. It has been our experience that the life of many a patient could have been saved, or that many would have received appropriate treatment in the earlier stage of their disease had the sputum been examined at the time when these patients were first seen by their doctor.

In children who do not expectorate, the swab slide method as described by Szucs will often reveal a positive sputum. According to this method a sterile cotton plug on an applicator is introduced into the child's pharynx, the pharynx irritated until the child coughs, and from the material brought up to the plug a slide prepared which is then examined by the routine method.

Our search for tuberculous children will be the most fruitful by systematically examining all the members of the households where tuberculosis has occurred. This procedure is routinely followed by most tuberculosis clinics and dispensaries. The systematic tuberculin testing of all the school children has been most extensively carried out by the State of Massachusetts and many communities. To these examinations the objections of the parents against the use of the tuberculin test is the greatest obstacle. This handicap can be overcome only by the continuous education of the general public. In many instances the cost of the x-ray films makes such surveys prohibitive. It has to be hoped that the use of the paper films as exhibited at this meeting by the National Tuberculosis Association will overcome this handicap.

Treatment. In regard to treatment, Opie, McPhedran and Hetherington[4] have laid down some basic rules which should be followed.

These rules are as follows:

"Sanatorium care, or its equivalent is necessary for 1. Pulmonary tuberculosis with symptoms or physical signs of activity. 2. Non-pulmonary tuberculosis with symptoms, or physical signs of activity. 3. Latent apical tuberculosis, or latent tuberculous infiltration elsewhere in the lung, that has the appearance of recent activity

or can be shown to be progressive by roentgenological examination. 4. Tuberculosis of tracheobronchial lymphnodes, the roentgenological demonstration of which is dependent on massive enlargement and not on calcium deposition.

"Preventorium or open-air school is suitable for the following types of infection: 1. Inactive manifest pulmonary tuberculosis. Any symptoms that are present are trivial, and the sputum if there is any, must be negative on repeated direct examinations and on guinea pig inoculation. 2. Latent apical tuberculosis, or latent tuberculous infiltration elsewhere in the lung, provided the lesion has no appearance of recent activity and is not progressing. 3. Nonpulmonary tuberculosis that cannot be shown to be progressing. 4. Pleural thickening thought to be tuberculous, in some cases the result of pleural effusion. 5. Roentgenologically demonstrable tuberculosis of tracheobronchial lymphnodes, partly calcified."

Cases of the adult type should undergo the same kind of treatment as the adults do. It cannot be emphasized strongly enough that beside the usual sanatorium regimen surgical measures as artificial pneumothorax phrenicotomy, etc., should be resorted to whenever indication for such procedures exist.

Air baths have proven of distinctly beneficial value in all forms of the disease. Sunbaths, natural and artificial, have a distinct value in the childhood type, but should be used with the greatest care and precaution and only in selected cases of the adult type.

As a matter of occupational therapy and in order to prevent loss of time in their studies and to keep up their work habits, the children shall be given instruction in their school subjects. Ambulant children can well attend classroom instruction. Those who have to stay steadily in bed can be instructed by their teacher at the bedside.

CASE REPORTS

Case 1. W. A., white, Syrian, aged 12 years, admitted to the Sanitarium on April 22, 1929.

Family History: Her sister was suffering from open pulmonary tuberculosis and was cared for in a sanatorium in New York State. (She died since.)

Present Illness: For four months she was coughing and expectorating and losing weight and was febrile. Had hemoptysis of considerable amount three months previous to admission. She went to school until four months prior to admission.

Physical and x-ray examination (Fig. 1) revealed far advanced chronic pulmonary tuberculosis with involvement of both sides, subacute endocarditis and badly infected tonsils.

The sputum was positive for tubercle bacilli. The temperature was ranging to 101-102 in the afternoons.

After 1 year of routine sanatorium care her condition was stationary and the prognosis was rather poor.

With the idea that by removing a focus of massive infection, her condition might somewhat improve, a tonsillectomy under local anesthesia was performed on June 14, 1930.

After the tonsillectomy soon the temperature became normal, the heart murmurs less pronounced and less harsh, the rales in the lungs less numerous and less moist, the sputum became negative and later on cough and expectoration was of very slight degree. However, the scant sputum specimen was proven positive on guinea pig inoculation on December 1, 1930.

Her condition apparently improved steadily when on September 29, 1931, and the day following she spat repeatedly considerable amount of blood and the hemoptysis seemed to be uncontrollable by the routine medical procedures. Physical examination revealed large consonant rales in an area of a silver dollar below the left clavicle and the radiogram showed faint signs of softening in the same area. Artificial pneumothorax on the left was, therefore, resorted to and the attempt was

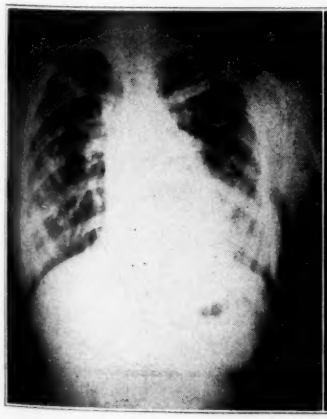

Fig. 1. Case No. 1.

Fig. 2. Case No. 1.

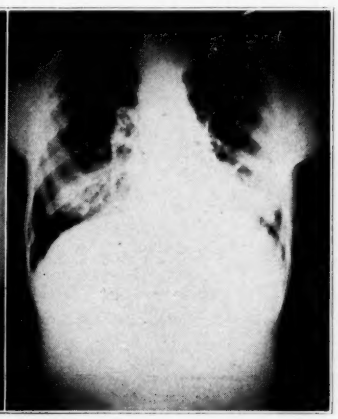

Fig. 3. Case No. 2.

successful. The sputum cleared up in a short time and the patient is again improving. She is still under artificial pneumothorax treatment (Fig. 2). Her physical appearance is excellent and she is giving the impression of a healthy girl.

Case 2. A. A., white, Syrian, aged 12 years admitted to the Sanitarium May 29, 1931. Sister of the previous case. She looked apparently healthy and well nourished. She had no complaints and went to school regularly. Only through the persistent visits and persuasions of the Clinic nurse were we able to secure finally an examination at the Clinic.

Physical and x-ray examination (Fig. 3) revealed a cavity of the size of a quarter in the left base. The sputum was positive for tubercle bacilli. Temperature was normal.

The cavity being in the base, phrenicotomy was resorted to on June 10, 1931. The routine sputum examination the month following still revealed the tubercle bacilli. The sputum, however, was negative in August and September. Since October, 1931, patient does not expectorate. Nevertheless serial x-ray films have shown that although the phrenicotomy was successful the cavity increased in size (Fig. 4). Artificial pneumothorax was, therefore, resorted to on November 12, 1931 and is successfully carried on since. Subsequent serial radiograms have shown the cavity constantly decreasing in size while the last one of April 16, 1932 shows it to be obliterated (Fig. 5).

Case 3. R. B., white, aged 13 years, admitted to the Sanitarium September 17, 1930.

She stated that she was coughing and expectorating and losing weight since June, 1928, and that in the same hosehold with her a man lived for a short time who had tuberculosis. In 1929 she was under the care of a tuberculosis specialist who discharged her from under his care as non-tuberculous. She went to school till a few days before her admission.

Physical and x-ray examinations (Fig. 6) revealed far advanced chronic pulmonary tuberculosis of the disseminated type throughtout all lobes and large honeycomb cavitations in the right upper lobe. Notwithstanding strict bed rest these cavities have increased in size as shown in the serial x-ray pictures. On June 3, 1931, therefore, a phrenicotomy on the right was resorted to. Although the phrenicotomy was fairly successful the

Fig. 4. Case No. 2.

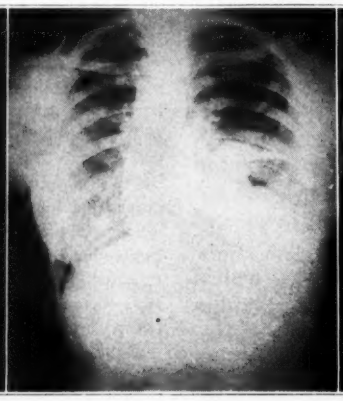

Fig. 5. Case No. 2.

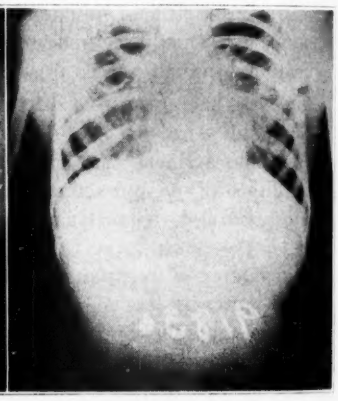

Fig. 6. Case No. 3.

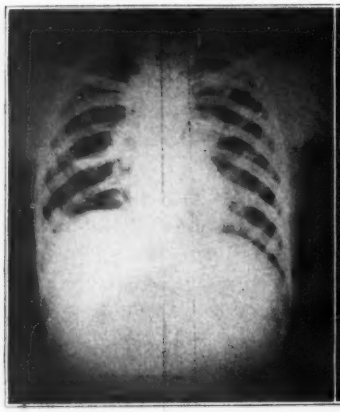

Fig. 7. Case No. 3.

Fig. 8. Case No. 4.

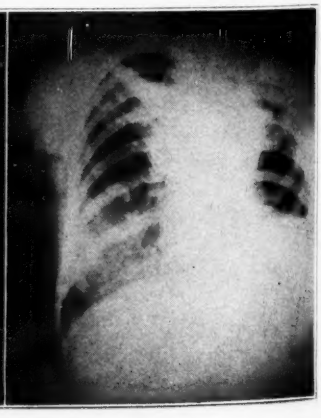

Fig. 9. Case No. 4.

condition of the patient is stationary and serial x-ray films (Fig. 7) show that the cavities are increasing in size.

This girl's sister aged 17 was for a short time also a patient of the Sanitarium. She had a solitary cavity in the right base and positive sputum. She however, left the Sanitarium against advice, and shortly afterwards died of lobar pneumonia.

Considering the history and the extent of the disease in these two cases, it is our belief that the older girl contracted tuberculosis from her younger sister.

Case 4. D. E., white, aged 14 years, admitted June 9, 1930.

Family History: Father and mother died of tuberculosis in the year 1927.

She stated that she was coughing and expectorating and had positive sputum since the end of the year 1928, that is from the age of 12. She was under the care of a tuberculosis specialist in the first half of the year 1929, who discharged her as arrested, although her sputum was still positive.

Physical and x-ray examination revealed far advanced pulmonary tuberculosis involving all lobes left and right upper lobe, with a cavity in the right apex. The sputum was positive for tubercle bacilli, temperature ranging to 101.

On July 7, 1930, she developed a partial spontaneous pneumothorax involving the left upper lobe (Fig. 8). A few days after that she developed a pleural effusion on the left side, the fluid filling out nearly the whole pleural cavity. The pleural cavity was aspirated and the fluid replaced by air and a hydropneumothorax established and maintained.

From August 9, 1930, her temperature became normal and she seemed to be steadily improving.

At no time were we able to find, beside the tubercle bacilli, other microorganisms, even on culture, in the pleural fluid. Nevertheless slowly an empyema developed. We resorted, therefore, to a phrenicotomy on April 1, 1931.

The empyema, however, increased in severity and she developed also a bronchial fistula.

Since December 26, 1931, we are having her under an oleothorax (Fig. 9). For a few weeks she expectorated occasionally traces of the oil. But for months now no oil is expectorated and the amount of sputum has considerably decreased. We believe therefore, that the fistula has closed. Aspirations, however, are necessary rather frequently to relieve dyspnea and other distressing symptoms. The pleural fluid is still sterile.

Physical examinations and serial x-ray films reveal a progressive process also in the right apex. But the patient feels fairly comfortable in bed.

EXTRAPULMONARY TUBERCULOSIS

One used to the prevalence of bone, joint, cervical and peritoneal tuberculosis on the continent is deeply impressed with the scarcity of these forms in this country. One cannot escape the conviction that the care given to the milk supply in this country is chiefly responsible for the rare occurrence and that the efforts in providing safe milk for human consumption are well repaid.

In regard to treatment of these forms one who has visited the institution of Rollier in Leysen, Switzerland, is lastingly impressed by the results achieved by heliotherapy and conservative orthopedic measures.

It has to be admitted, however, that for social and other reasons the more radical surgical measures have their definite indications and place in our armamentarium.

In tuberculous meningitis and miliary tuberculosis still only symptomatic treatment is at our disposal.

SUMMARY

1. The chief characteristic of pulmonary tuberculosis in childhood is the latency of the disease. Therefore, only the systematic examinations of the apparently healthy children will lead to the finding of cases in the early stage of the disease.

2. Tuberculin test and radiograms combined are essential in the diagnosis.

3. Airbaths and heliotherapy (sun and artificial) are beneficial in the treatment of the juvenile type.

4. In the adult type surgical treatment (artificial pneumothorax, phrenicotomy, etc.) shall be resorted to whenever the involvement is advanced.

REFERENCES

1. The mortality statistics have been compiled from the official statistics of the Illinois State Department of Puble Health, published in the Illinois Health Quarterly, New Series ,Vol. III No. 4.

2. Chadwick, H. D., and Zacks, D.: Jour. A. M. A., 1927, XXXIX, 670.

3. Hetherington, H. W.: Amer. Rev. Tuberc., 1927, XVI, 459.

4. Hetherington, H. W.: Amer. Rev. Tuberc. 1929, XX, 518.

DISCUSSION

Dr. Hermon H. Cole, Springfield: I think that Dr. Pollak has hit the nail smack on the head in this paper, and there is so much that I would like to discuss that it would take the rest of the day. I am going to mention only a very few things.

Dr. Pollak looks at this situation very much, I think, from the standpoint of the child; I look at it from the standpoint of tuberculosis from infancy to old age and as a part of the group which I am seeing.

Unquestionably, tuberculosis, and I think that everybody agrees with this, is still the most serious disease of children and young adult life. I agree with him thoroughly that the diagnosis of childhood tuberculosis is a very difficult matter. I know that in the whole field I do not have nearly as much difficulty with adults and young adults as I do with children. I admit that I am very deficient many times in my diagnostic ability.

I have missed a lot of them that I rather hate to admit and have had them come back later and I found that I missed them the first time.

Certainly it is a very common thing with me to have children report several times, much more often than I do with adults.

I agree thoroughly that the appearance of the child is not any reliable criterion as to the manner of tuberculous infection. Many times in examining our clinic people we find that the children who look the best in the family have the most widespread infection. It is also true over the last twelve years that I have been connected with the Springfield Tuberculosis Clinic that our reactors and our definite tuberculous children in tuberculous families will run approximately 3 to 1 with those children who are not so closely associated or in contact with those tuberculous cases. Certainly it is true that in tuberculous families if you find one case you should go through the rest of the family. We have found, particularly in our clinic where it is easily possible to do it, that there are usually more than one case of tuberculosis in the family; almost invariably there are several cases that can be uncovered.

I want to say a particular word about tuberculous glands. Ten years ago we had great numbers of these in our clinics. We saw a good many of them in the office. Today they are becoming a rarity. I am speaking now of tuberculous glands of the neck. I am wondering if it is not possible that the nose and throat men have inadvertently done the tuberculosis men a considerable amount of good by the early removal of tonsils, and I am wondering if some of the lowered mortality that we are getting in adult tuberculosis at the present time has not been due to the fact that the children who, ten, fifteen, or twenty years ago, had tuberculous glands and tonsils were beginning to have those things removed, and at the present time we are having an adult class in which that amount of tuberculous infection has been taken away. I know that there are many men who disagree with that, but I personally believe that it is true. Certainly a tuberculous glandular infection in the neck in our clinic is much rarer than it used to be. We are not getting nearly as many as we did.

In a certain percentage of adults we can inject lipiodol into the lung without an anesthetic and I see no reason why it is not perfectly possible that children with upper respiratory infections, particularly tonsils or tuberculosis of the middle ear or sinuses, cannot in fect their own lungs in that same manner. They do not, as a rule, cough like the adults do, the cough is not as acute; and I think that it is possible that a good deal of our tuberculous lung infection comes in that manner.

There is another method of transmission of tuberculosis which I have long been carrying in the back of my mind and which I have heard very little about in the literature. The whole pathway is not entirely worked out, and I would like to have some of the men who are doing work along this line think about it a little bit, and I hope that Dr. Pollak will answer a question for me. I would like to know what his opinion is.

Some years ago when I was a student at Ann Arbor, Dr. Van Zwaluwenburg was doing work on apical pleuritis. He was trying to find an entrance of pleuritis, in all his groups from infancy to old age, down the neck. Since that time I have been carrying around in the back of my mind the possibility that with tuberculous tonsils, tuberculous glands of the neck, there might be a transference down the neck. I realize that that pathway has not been shown; but a transference downward by way of the lymphatics to the cervical pleura, from there into the dead space and the hilus of the lung, as a possible new third pathway, especially in children, is a possibility on which I would like to know Dr. Pollak's opinion.

I agree thoroughly that if you eliminate the childhood tuberculosis, or at least reduce it very markedly, you certainly will take care of a great deal of adult tuberculosis.

Just a word about surgery in children. I have not been privileged to do a great deal of surgery on childhood tuberculosis. Of those that I have done I feel this way about it: I do not like pneumothorax very well in children. Most of those that I have done have been between 10 and 16, and they have not done particularly well. They have not done as well as adults with similar symptoms of disease and a similar type. Possibly the tendency to scar formation is not as good, or the tendency to fibrosis is not as strong. Certainly the mediastinum is more flexible.

I believe that tuberculosis in childhood is remarkably well tolerated. I think in the great majority of cases, given an equal amount of childhood tuberculosis as compared with an equal amount of adult tuberculosis, though the types are different, the evidence is in favor of the child; I think that the child will do better, will carry an equal load better than a similar load carried by an adult. I believe the Phrenic operation is not as often used in children as it should be. I am not radical on the subject at all, but I believe that it is more conservative surgery than pneumothorax and should be used more often. It does not preclude the possibility of doing a pneumothorax later, if necessary, and I believe that it will give safer and better results with less disturbance to the children.

I appreciate very much this paper, and I thank the Doctor for allowing me to discusss it.

Dr. Sumner N. Miller, Peoria: I have had the opportunity of watching Dr. Pollak's work very closely and there are two or three striking things that are worth while emphasizing.

One is that the adult type does occur in children and in children of school age who are disseminating the disease in the schools, and that identification of these cases will be a major factor in controlling the spread of the disease.

The second is this: That much of adult tuberculosis is due to the childhood type of tuberculosis which remains latent until adult life and that the future line of endeavor in the eradication of adult tuberculosis will lie in the identification of the childhood type and in the adoption of appropriate measures to stamp out and cure the disease during the childhood period when it is easily amenable to treatment.

Dr. M. Pollak, Peoria (Closing discussion): I am very grateful to Dr. Cole for his discussion and especially for a few points that he brought out. In regard

to glandular tuberculosis, I wish to say that to me, who has been brought up abroad and who knows the conditions abroad quite well, it was very surprising to see how few cases of glandular and bone and joint tuberculosis we see in this country. It is generally agreed that these cases are caused by bovine infection. I believe that the scarcity of these cases in this country can be accounted for by the fact that we are paying quite a great deal of attention to our milk problem and our cattle. I have spoken on the subject to Dr. Petroff at Saranac Lake who has had similar experiences and his opinion is the same.

In regard to the upper respiratory infections of the sinuses and tonsils, causing pulmonary involvement, I thoroughly agree with Dr. Cole. And that is the reason that I did emphasize that x-ray pictures alone are not entirely satisfactory in diagnosing childhood tuberculosis. That is the reason why we have to use both the radiogram and the tuberculin test. The radiogram will show the lung involvement and the tuberculin test will clarify the etiology, keeping in mind that in vary rare instances the tuberculin test might be negative in cases of tuberculosis.

In regard to the rout of infection leading from the tonsils into the lungs, as Dr. Cole has mentioned, I think in certain instances he is right in that. I have seen a few cases in which we found the glands of the neck calcified and calcified areas in the apex which would point to that road of infection.

In regard to surgery in the child, I agree with Dr. Cole on the fact that artificial pneumothorax is far more dangerous than phrenicotomy. A pleural effusion complicating artificial pneumothorax, which in a certain number of cases becomes an empyema, is not a welcome complication. However, in my opinion, artificial pneumothorax should be applied in upper lobe involvements, and phrenicotomy in basal involvements. As I have shown in one of my cases, we resorted first to phrenicotomy and only after our attempt was unsuccessful and the basal cavity became larger instead of smaller after phrenicotomy, did we resort to artificial pneumothorax. However, our routine is that in every instance where artificial pneumothorax cannot be given we always resort to phrenicotomy, even in apical lesions, and we have seen quite a number of marked improvements in apical cavities and upper lobe involvements from phrenicotomy alone.

I thank you.

GOOD ADVICE

"You must give up staying out late at night," said the doctor.

"You think the night air is bad for me, doctor?"

"No," said the doctor, "it isn't that. It's the excitement after getting home that harms you."

WHY WORRY

An old lady approached a ship's officer on a dirty night. "Oh, I feel dreadfully ill," she moaned, "what do you think I should do?" "Don't let that worry you," replied the callous sailor, "you will do it anyway."

IN THE NURSERY

(With Apologies to Gluyas Williams)

First Newborn: So this is America!

Second Newborn: Yeh! How do you like it?

F. N.: Not bad, not bad. When did you get in?

S. N.: About an hour ago; my train was late. I came in on the Perineal Limited. Fast train, only took me four hours.

F. N.: You made good time. I came in on the Amniotic Express. We got stuck about two hours out. Yeh; had a washout over my head.

S. N.: Wassamatter?

F. N.: Somebody hit me on the head with a steel blade as I was trying to get through the vestibule of the train. Sore as 'ell, too!

S. N.: Tough! Who's your Daddy?

F. N.: Dunno yet; he hasn't been around. My mother didn't seem too keen about me. Said I looked funny and had a pug nose. Can you imagine that? Well, you never can satisfy a woman. I'm here to stay.

S. N.: You tell 'em! How'd you like this joint? Kinda nifty, eh?

F. N.: Oh, not so bad. Wish the gang would keep quiet a minute so a fellow could grab off a little sleep. Gosh! Listen to that yap next to me!

S. N.: Ain't it the truth? What are you eating these days?

F. N.: Breast milk. I take mine straight. How about you?

S. N.: Bootleg, kid; the old lady's as dry as the Sahara.

F. N.: The 'ell you say!

S. N.: Yeh! Stuff ain't bad—kinda weak, though. Well, I'm lucky to get that.

F. N.: Ho, hum. Great life, ain't it, kid?

S. N.: Well, the first six months are the hardest. Cheer up, partner. Wait'll you get your teeth.

F. N.: O Boy! I can taste the zwiebac now. Well, time flies. Guess I'll turn in for a nap. See you later. Cheerro!

S. N.: Don't take any cast iron nipples. Toot sweet, old top.

Infant jabber as translated by a few of our fourth and fifth floor nurses.—*Edgewater Hospital Staff News.*

LARGE NUMBERS OF PROFESSIONAL MEN ARE ON THE AUSTRALIAN DOLE

Workless men and women in Australia are contentedly "nesting down on the dole."

The problem of this workless army, apparently content to be unemployed for life, is causing such concern in political circles that Joseph Lyons, prime minister, summoned a conference of the heads of all Australian states.

Large numbers of professional men are now "on the dole," and it is reported that they make ends meet and find the absence of worry an agreeable experience.

PATRIOTISM

A real patriot is the man who whistled "The Star Spangled Banner" while making out his income tax.

Society Proceedings

COOK COUNTY

CHICAGO MEDICAL SOCIETY

General Practitioner's Night, February 1, 1933

ABDOMINAL EMERGENCIES FROM THE STANDPOINT OF THE GENERAL PRACTITIONER

Abdominal Emergencies (Non-Traumatic) ..... Roger T. Vaughan

Abdominal Emergencies Dealing Especially with Abdominal Injuries ..... George G. Davis

Abdominal Emergencies in Infancy and Childhood ..... Edwin M. Miller

Abdominal Emergencies, Dealing with the Gynecological Phase ..... Harold O. Jones

Discussion ..... William Cubbins, Harry E. Mock, Dr. Gatewood, F. H. Falls, Robert Black, Joseph Brennemann

Regular Meeting, Wednesday, February 8, 1933

MEDICAL LEGISLATION

1. The Physician and the Law.
   Harry Eugene Kelly
2. Medical Organization and Legislation.
   Thomas P. Foley, Chairman Legislative Committee, Chicago Medical Society
3. Legislative Problems.
   John R. Neal, President, Illinois State Medical Society

Regular Meeting, Wednesday, February 15, 1933

PROGRAM SPONSORED BY

Rush Medical College and the University of Chicago

Everyday Knee Injuries, Excluding Fracture—Diagnosis and Treatment ..... Kellogg Speed

Tuberculosis and Pregnancy ..... Fred L. Adair

The Diagnostic Value of Roentgenograms of the Epiphyses of Growing Bones ..... Arthur H. Parmelee

The Sympathetic Nervous System and Skin Diseases ..... Samuel W. Becker

Regular Meeting, Wednesday, March 1, 1933

PROGRAM

Surgical Treatment of Tuberculosis .... Carl A. Hedblom

Evaluation of the Surgical Risk .... William R. McNealy

Deferred Operation in the Treatment of Periappendicular Abscess ..... Karl Meyer

Discussion ..... Ralph Bettman, Benjamin Goldberg, William Cubbins, N. M. Percy

Personals

Dr. Frank Smithies was recently awarded the cross of the French Legion of Honor; the presentation was made by the French consul in the name of the president of France.

Dr. Henry R. Jacobs has been appointed an assistant in the department of medicine, Division of Biological Sciences, University of Chicago.

The first Jessie Horton Koessler Fellowship of the Institute of Medicine of Chicago for the aid of research in biochemistry, physiology, bacteriology or pathology has been awarded for one year to Dr. Arthur D. Bissell.

Dr. Harold O. Jones, Chicago, addressed the Will-Grundy County Medical Society, February 22, on "Treatment of Pelvic Infections." A film on "Salpingectomy and high Fundic Amputation for Residues of Tubal Disease" was also shown.

Dr. Lewis R. Hill has been appointed professor of bacteriology at Loyola University School of Medicine, succeeding Dr. Emil Weiss, who resigned because of ill health. Dr. Jacob P. Greenhill was recently appointed associate professor of gynecology at Loyola.

Dr. Harvey J. Howard recently resigned the professorship of ophthalmology in the Medical School, Washington University, Saint Louis, in order to open a private office in the Park Plaza Hotel, Kingshighway and Maryland Avenue, Saint Louis, Missouri.

Dr. Erwin P. Zeisler, Chicago, spoke on "Malignant New-Growths of The Skin," at Janesville, Wisconsin, on February 28.

The newly elected officers of the Chicago Dermatological Society are as follows: President, Oliver S. Ormsby; Vice-President, James H. Mitchell, and Secretary, Max S. Wien.

Dr. Max Thorek addressed the Muncie Academy of Medicine at Muncie, Indiana, February 7, 1933, on "Plastic Surgery from the General Surgeon's Point of View."

Dr. Harrison S. Martland, chief medical examiner for Essex County, New Jersey, delivered the ninth Ludvig Hektoen Lecture of the Institute of Medicine of Chicago, February 24, 1933. His subject was "Recent Progress in the Medico-legal Field in the United States."

Dr. William Allen Pusey, emeritus professor of dermatology, University of Illinois College of Medicine, will deliver the Adolph Gehrmann Memorial Lectures at the Research and Educational Hospital of the college, March 1-3, on "History and Epidemiology of Syphilis." The subtitles of the lectures will be "History of Syphilis," "Development of Knowledge of

Syphilis'' and Epidemiology of Syphilis.'' A dinner in honor of Dr. Pusey has been arranged by the university, to be given at the Palmer House, March 2.

Dr. J. P. Greenhill read a paper before the St. Joseph County Medical Society, at South Bend, Indiana, on ''Recent Progress in Obstetrics and Gynecology'' February 16. He also showed a motion picture film on ''Breech Presentation.''

News Notes

—S. 241 and H. 298 propose to create a medical center in Chicago and to authorize a medical center commission of three members to acquire title to lands in the designed territory. S. 238 proposes to levy a tax equal to 1 per cent of the gross receipts derived from the practice of any profession or occupation.

—H. 225 proposes that all contracts of companies doing business in Illinois, insuring against bodily injury, disablement or financial loss, resulting from accidents, shall authorize the insurer to pay all claims of hospitals and physicians directly to them instead of to the injured person to whom such hospital and medical services have been rendered because of such accidents.

—A public health conference was held at Mendota, February 24, by the Illinois Federation of Women's Clubs in cooperation with the state health department, parent teacher organizations and local health agencies. Speakers at the all day session included Drs. William A. Evans, Chicago, on ''Hard Times and Public Health''; Paul L. Schroeder, Chicago, ''Keeping in the Middle of the Road''; Grace S. Wightman, Springfield, ''Adequate Health Program for Small Towns,'' and Lena Sadler, Chicago, ''Mental Hygiene.''

—A program was given before the Chicago Tuberculosis Society, February 11, by Drs. Frederick T. Lord, Boston, on ''Pneumonia''; Francis M. Pottenger, Monrovia, Calif., ''Reflex Relationship of the Lungs to Other Organs''; Henry Kennon Dunham, Cincinnati, ''Emphysema a Serious Sequela of Arrested Pulmonary Tuberculosis,'' and Jay Arthur Myers, Minneapolis, ''Some Changes in Our Conceptions of Tuberculosis.'' These physicians are members of the board of directors of the National Tuberculosis Association, which held its meeting in the afternoon.

—H. 161 proposes to make it the duty of every physician, midwife or nurse who attends or assists at the birth of a child, to instil or have instilled in each eye of the new-born baby, as soon as possible and not later than one hour after birth, a 1 per cent solution of silver nitrate or some other equally effective prophylactic for the prevention of ophthalmia neonatorum approved by the state department of public health. S. 172 proposes that expenses attending the last illness, including physicians' bills to the amount of $250, funeral expenses and necessary costs of administration, be given a priority over all other claims in the distribution of a decedent's estate.

—The American Conference on Hospital Service gave a symposium on hospital economics, February 14. The speakers were Morris Fishbein, on ''Hospitals and Insurance''; Herman Smith, medical superintendent, Michael Reese Hospital, ''Group Payment Plans,'' and Rosco G. Leland, director, Bureau of Medical Economics, American Medical Association, who will lead the discussion in the form of a question box. Dr. Winford H. Smith, director, Johns Hopkins Hospital, Baltimore, addressed the luncheon meeting of the Central Council for Nursing Education, February 14, on ''Future Trends in Nursing.'' These organizations are meeting in conjunction with the Congress on Medical Education and Hospitals of the American Medical Association.

—Dr. Andy Hall, Springfield, has resigned as health officer of Illinois, and Dr. Frank J. Jirka, Chicago, has been appointed to succeed him. Dr. Hall, who completed a four year term as state health officer, had previously been health officer of Mount Vernon for about the same length of time. He was also mayor of Mount Vernon. He is a past president of the Jefferson-Hamilton County- Medical- Society and the Southern Illinois Medical Society; at one time he was secretary of the county medical society. Dr. Hall has three sons who are physicians. Dr. Jirka, who graduated from Northwestern University Medical School in 1910, is assistant professor of surgery at the University of Illinois College of Medicine, Chicago.

Deaths

MAURICE WILLIAM ATON, Chicago, Ill.; Loyola University School of Medicine, Chicago, 1917; member of the Illinois State Medical Society; aged 46; died, January 7, in Dayton, Pa., of angina pectoris.

ARISTA BINGLEY, Chicago; University of Illinois College of Medicine, 1898; a member of Illinois State Medical Society; aged 79; was killed, January 24, by an automobile, when crossing a street near Park Ridge.

EDMUND J. BOWLES, Chicago; Chicago Medical College, 1923; aged 53, died, February 7, of heart disease.

CHARLES FORD BRADWAY, Abingdon, Ill.; Butler University Medical Department, Indianapolis, 1882; aged 82, died, December 30, 1932, in St. Mary's Hospital, Galesburg, of uremia, prostatic obstruction and pyonephrosis.

ALFRED STEPHEN BURDICK, North Chicago, Ill.. Rush Medical College, Chicago, 1891, a Fellow, A. M. A., since 1921 president and general manager of the Abbott Laboratories, vice president and assistant general manager, 1916-1921; associate professor of medicine, Illinois Medical College, 1899-1904; president of the American Drug Manufacturers Association, 1923-1925; during the World War served on selective service board, number 59; in 1923 was appointed lieutenant colonel, medical reserve corps; author of "Standard Medical Manual," "The Remedy" and "Common Emergencies"; aged 65; died, February 11, in the Highland Park (Ill.) Hospital of pneumonia.

JAMES EVERETTE COLEMAN, Chicago; Loyola University School of Medicine, Chicago, 1928; aged 33; died, Nov. 18, 1932, in the Provident Hospital, of cocaine poisoning, self-administered.

EDWIN GRAFFAM EARLE, Chicago; College of Physicians and Surgeons, Chicago, 1891; a Fellow, A. M. A.; formerly professor of histology and associate professor of medicine at his alma mater; on the staff of the Illinois Masonic Hospital and attending physician to the Columbus Hospital; aged 66; died suddenly, February 2, of angina pectoris.

RALPH DEEMS FOX, Bloomington, Ill.; University of Michigan Medical School, Ann Arbor, 1903; a Fellow, A. M. A.; member of the American Academy of Ophthalmology and Oto-Laryngology; on the staff of the Brokaw Hospital, Normal; aged 55; died, Dec. 31, 1932, of carcinoma of the pleura.

JOHN HAMILTON GRAY, Morrison, Ill.; Hahnemann Medical College and Hospital, 1883; former State senator; aged 75; died, January 12, of influenza and pneumonia.

GUY JEROME HALL, Smithfield, Ill.; St. Louis College of Physicians and Surgeons, 1909; member of the Illinois State Medical Society; served during the World War; formerly mayor of Smithfield; aged 54; died, Dec. 26, 1932, in the Graham Hospital, Canton, of uremia and chronic nephritis.

EDWARD M. IRWIN, Belleville, Ill.; Missouri Medical College, St. Louis, 1892; a member of Illinois State Medical Society; a former congressman, aged 63; died, January 30, of pneumonia.

EDWARD T. JUCHHOFF, Chicago; Chicago Medical College, 1918; aged 40; died, January 27, of chronic myocarditis.

OTTO M. KUEHN, Waterloo, Ill.; Ludwig-Maximilians-Universität Medizinische Fakultät, München, Bavaria, Germany, 1864; Civil War veteran; aged 90; died, January 5, of broncho-pneumonia.

JOHN J. LEAHY, Lemont, Ill.; Rush Medical College, Chicago, 1885; for many years township and village health officer; president of the board of education; aged 69; died, January 24.

SHELDON LEAVITT, Chicago, Hahnemann Medical College and Hospital, Chicago, 1877; professor of obstetrics at his Alma Mater, 1880-1898; and professor of gynecology in Chicago Homeopathic Medical College, 1898-1902; aged 84; died, February 1, at Chicago Memorial Hospital, following an operation for hypertrophied prostate.

WILLIAM A. MUDD, Athens, Ill.; University of Louisville, School of Medicine, 1870; twice mayor of Athens, and formerly active in the Illinois State Medical Society, retired in 1927; aged 86; died, December 28, in Detroit.

ALBERT PEACOCK, Chicago; University of Buffalo School of Medicine; 1891; a member of the Illinois State Medical Society; aged 70; died, January 11, of myocarditis, influenza and pneumonia.

ADOLPH ROOS, Oak Park, Ill.; Rush Medical College, 1887; aged 74; died, December 23.

GUSTAV H. R. SCHROEPPEL, Collinsville, Ill.; St. Louis College of Physicians and Surgeons, 1892; aged 64; died, in St. Mary's Hospital, East St. Louis, February 3, of heart disease.

FRANCES A. PRINDLE SMITH, Chicago Heights, Ill.; Northwestern University Woman's Medical School, Chicago, 1882; aged 90; died, Dec. 16, 1932, of senility.

BYRON STAGER TURNER, Chicago; Chicago Medical College, 1887; a Fellow, A. M. A.; aged 69; died, January 7, of thrombosis, cerebral hemorrhage and carbuncle of the neck.

CHARLES SPENCER WILLIAMSON, Chicago; Medical College of Ohio, Cincinnati, 1896; a Fellow, A. M. A., since 1912 professor of medicine and head of the department, University of Illinois College of Medicine, adjunct professor of medicine, 1901-1903, and professor of clinical medicine, 1903-1912; formerly assistant professor of diseases of the stomach and professor, Chicago Polyclinic; member of the Association of American Physicians and the American Society for Clinical Investigation; served during the World War as lieutenant colonel in the U. S. Army Medical Corps; director of the School of Military Hygiene and Sanitation at Fort Oglethorpe; in 1917 was awarded the certificate of Merit by the American Medical Association for an exhibit of research work; for many years on the staffs of the Cook County and the Research and Educational hospitals; editor of "French's Practice of Medicine" in 1910; aged 60; died, February 15, of coronary thrombosis.

JACOB WILFORD WINE, Chicago Homeopathic Medical College, 1895; Rush Medical College, Chicago, 1901; a Fellow, A. M. A.; served during the World War; diagnostician in the contagious diseases department, Chicago Board of Health; on the Staff of the Columbus Memorial Hospital; aged 65; died, February 3, of coronary thrombosis.

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